In Two Sections Section 1

The EDISON ELECTRIC INSTITUTE BULLETIN

September 1956

GEOGRAPHY & INDUSTRY
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Published Monthly by Edison Electric Institute

Keeping the Company's Economic Structure Sound
Donald S. Kennedy

Recent Legislation Affecting the Electric Utility Industry
Walter H. Sammis

Meeting the Load Growth
Chas. E. Oakes

Selecting Future Management
F. L. Larkin

The Real "Give-Away"
The Guaranty Survey

EEI Resuscitation Awards

EEI Award Competitions for 1956

ELECTRICAL RESEARCH STATISTICS
THE ELECTRIC LIGHT AND POWER INDUSTRY

Current Statistical Data Covering 100 Per Cent of Industry

(Includes Investor-Owned Companies, Cooperatives, and Government-Owned Utilities)

June, 1955-1956

SOURCE AND DISPOSAL OF ENERGY—MONTH OF JUNE

	1956	1955	%
NET GENERATION* (Kwhrs in Thousands)			
By Fuel Burning Plants	39,402,421	34,525,154	+14.1
By Water Power Plants	10,048,531	9,709,237	+ 3.5
Total Generation	**49,450,952**	**44,234,391**	**+11.8**
Add—Net Imports Over International Boundaries	365,351	289,559	+26.2
Less—Company Use	130,854	122,922	+ 6.5
Less—Energy Used by Producer	1,344,435	988,796	+36.0
Net Energy for Distribution	**48,341,014**	**43,412,232**	**+11.4**
Lost and Unaccounted for	5,265,727	4,521,442	+16.5
Sales to Ultimate Customers	**43,075,287**	**38,890,790**	**+10.8**

CLASSIFICATION OF SALES

NUMBER OF CUSTOMERS—As of June 30th			
Residential or Domestic	44,994,532	43,755,742	+ 2.8
Rural (Distinct Rural Rates)	1,677,067	1,634,238	+ 2.6
Commercial or Industrial:			
Small Light and Power	6,109,942	6,028,257	+ 1.4
Large Light and Power	292,793	283,637	+ 3.2
Other Customers	171,723	168,357	+ 2.0
Total Ultimate Customers	**53,246,057**	**51,870,231**	**+ 2.7**
KILOWATTHOUR SALES—During Month of June (Kwhrs in Thousands)			
Residential or Domestic	10,198,188	8,974,665	+13.6
Rural (Distinct Rural Rates)	975,032	957,901	+ 1.8
Commercial or Industrial:			
Small Light and Power	7,316,271	6,586,236	+11.1
Large Light and Power	22,941,465	20,836,214	+10.1
Street and Highway Lighting	322,350	295,929	+ 8.9
Other Public Authorities	928,629	836,546	+11.0
Railways and Railroads:			
Street and Interurban Railways	186,186	194,864	− 4.5
Electrified Railroads	155,405	156,677	− 0.8
Interdepartmental	51,761	51,758	0.0
Total to Ultimate Customers	**43,075,287**	**38,890,790**	**+10.8**
Revenue from Ultimate Customers (Thousands)	**$710,990**	**$646,951**	**+ 9.9**

RESIDENTIAL OR DOMESTIC SERVICE

AVERAGE CUSTOMER DATA—For 12 months ended June 30, 1956			
Kilowatthours per Customer	2,879	2,649	+ 8.7
Average Annual Bill	$75.43	$70.73	+ 6.6
Revenue per Kilowatthour	2.62¢	2.67¢	− 1.9

* By courtesy of the Federal Power Commission.

THE EDISON ELECTRIC INSTITUTE BULLETIN is published monthly by the Edison Electric Institute, an association of electric light and power companies in the United States and its territorial possessions. Its affiliate members consist of members of the Canadian Electrical Association.

The objectives of the Edison Electric Institute are:

The advancement in the public service of the art of producing, transmitting, and distributing electricity and the promotion of scientific research in such field.

The ascertainment and making available to the members and the public of factual information, data, and statistics relating to the electric industry.

To aid its operating company members to generate and sell electric energy at the lowest possible price commensurate with safe and adequate service, giving due regard to the interests of consumer, investor, and employee.

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Vol. 24 No. 9

Articles, Speeches, Reports

Keeping the Company's Economic Structure Sound
Donald S. Kennedy 295

Recent Legislation Affecting the Electric Utility Industry
Walter H. Sammis 299

Meeting the Load Growth
Chas. E. Oakes 303

Selecting Future Management
F. L. Larkin 307

The Real "Give-Away"
The Guaranty Survey 313

EEI Resuscitation Awards 315

EEI Award Competitions for 1956 317

News, Notes, Miscellany

Conventions and Meetings 294

Third Annual Workshop Scheduled by EEI Area Development Committee 298

National HOUSEPOWER Campaign Covers First Lap of Home Wiring Modernization Race 302

Technical Appraisal Task Force on Nuclear Power Organized by EEI 319

21 EEI Safety Merit Awards Presented to 14 Companies in July and August 320

EEI Publications and Service Material 321

Personals 323

CONVENTIONS AND MEETINGS

1956

OCTOBER

1- 2 PEA System Planning Committee, Skytop, Pa.

1- 3 **EEI Prime Movers Committee, Radisson Hotel, Minneapolis, Minn.**

1- 5 **AIEE Fall General Meeting, Morrison Hotel, Chicago, Ill.**

3 **EEI Area Development Committee Meeting, Radisson Hotel, Minneapolis, Minn.**

3- 5 **Indiana Electrical Association Annual Convention, French Lick Springs Hotel, French Lick, Ind.**

3- 5 Missouri Valley Electric Association Sales and Rural Conference and Home Service Workshop, Hotel President, Kansas City, Mo.

3- 5 Southeastern Electric Exchange General Sales Conference, Tides Hotel, St. Petersburg, Fla.

4 NARUC Executive Committee, LaSalle Hotel, Chicago, Ill.

4- 5 **EEI Area Development Workshop, Radisson Hotel, Minneapolis, Minn.**

4- 5 Joint EEI & New England Electrical Council Statistical Committees, New Ocean House, Swampscott, Mass.

4- 5 PEA Electrical Equipment Committee Fall Meeting, Arlington Hotel, Binghamton, N. Y.

4- 5 PEA Hydraulic Power Committee, Mountain View Hotel, Greensburg, Pa.

7-10 **Rocky Mount Electrical League Annual Fall Convention, Broadmoor Hotel, Colorado Springs, Colo.**

10-11 PEA Systems Operation Committee, Penn Alto Hotel, Altoona, Pa.

11-12 Southeastern Electric Exchange Accounting Conference, Hotel Seville, Miami Beach, Fla.

15-16 **EEI Electrical Equipment Committee, Hotel Statler, Cleveland, Ohio**

15-16 Iowa Utilities Association Annual Management Conference, Hotel Fort Des Moines, Iowa

15-17 **AGA Annual Convention, Acctg. Headquarters, Haddon Hall Hotel, Atlantic City, N. J.**

16-18 AIEE Conference on Magnetism and Magnetic Materials, Hotel Statler, Boston, Mass.

17-19 Wisconsin Utilities Association Annual Convention of Electric & Gas and Operating & Sales Sections, Schroeder Hotel, Milwaukee, Wis.

18-19 **EEI Transmission and Distribution Committee, Hotel Statler, Buffalo, N. Y.**

18-19 PEA Meter Committee, Split Rock Lodge, Pa.

18-19 PEA Prime Movers Committee, Long Island, N. Y.

22-23 PEA Communications Committee, Fort Stanwix Hotel, Johnstown, Pa.

22-24 **7th National Conference on Standards, Am Standards Assn, in conjunction with 38th Annual Meeting, Hotel Roosevelt, New York, N. Y.**

1956

22-26 National Safety Council Annual Convention, Conrad Hilton Hotel, Chicago, Ill.

25 Oklahoma Utilities Association Electric Light and Power Division Western District, Chickasha, Okla.

25-26 PEA Relay Committee, Hotel Robert Treat, Newark, N. J.

26 EEI Electric Space Heating & Air Conditioning Committee, Indianapolis, Ind.

26 Oklahoma Utilities Association Electric Light and Power Division Eastern District, Poteau, Okla.

29-30 EEI Wiring Promotion Committee, Cherry Hill Inn, Haddonfield, N. J.

NOVEMBER

1- 2 EEI Accounting Division Advisory and Executive Committee, Hotel Statler, St. Louis, Mo.

1- 2 PEA Transmission and Distribution Committee, Shenango Inn, Sharon, Pa.

2 EEI Sales Personnel & Training Committee, EEI Headquarters, New York, N. Y.

8- 9 EEI Commercial Lighting Committee, Shoreham Hotel, Washington, D. C.

8- 9 EEI Residential Group Chairmen, St. Louis, Mo.

12-16 **NEMA Meeting, Traymore Hotel, Atlantic City, N.J.**

14-15 Pacific Coast Electrical Association Administrative Services Section, Hotel Biltmore, Santa Barbara, Calif.

15 **EEI Industrial Relations Committee, EEI Headquarters, New York, N. Y.**

15-16 EEI Industrial Power & Heating Group, Detroit, Mich.

25-30 **ASME Annual Meeting, Hotel Statler, New York, N. Y.**

26-27 EEI-AGA General Accounting Committees, Henry Grady Hotel, Atlanta, Ga.

26-28 **EEI Accident Prevention Committee, Statler Hotel, Hartford, Conn.**

DECEMBER

3- 4 EEI-AGA Plant Accounting Committees, Hotel Carter, Cleveland, Ohio

3- 5 EEI-AGA Electronics Seminar, Netherlands Hilton Hotel, Cincinnati, Ohio

6- 7 EEI-AGA 1957 Accounting Conference Planning Committee, EEI-AGA Headquarters, New York, N. Y.

13-14 EEI Commercial Electric Cooking and Water Heating Committee, Birmingham, Ala.

13-14 EEI-AGA Customer Accounting Committees, Hotel Roosevelt, New Orleans, La.

13-14 EEI-AGA Customer Collections Committees, Jung Hotel, New Orleans, La.

13-14 EEI-AGA Customer Relations Committees, Jung Hotel, New Orleans, La.

The EDISON ELECTRIC INSTITUTE
BULLETIN

Keeping the Company's Economic Structure Sound

By Donald S. Kennedy

President, Edison Electric Institute, and
President and Chairman of the Board, Oklahoma Gas and Electric Company

An address before the Ninth Annual Round Table Conference of the EEI Industrial Relations Committee, Chicago, Ill., September 17, 1956

MY subject is so broad that it must be limited, but before delimiting, may I give my sincere congratulations to this group. Our industry has come a long way in the matter of growth. You, in this group, have gained in stature and have become an increasingly important component of a great industry. Speaking of growth, it is the very basic cause of the problems which this conference has for consideration. Almost all of us have been so near this spectacular development of our industry that it is most difficult for us to realize what has been happening.

A Typical Company

Since our company is fairly typical, perhaps a few statistics on our growth would serve to bring the matter of growth into proper focus.

During the first year of my connection with Oklahoma Gas and Electric Company 33 years ago, or in 1923, our system peak was 27 Mw; in 1940 it was 130 Mw; in 1946 it was 220 Mw; and in 1956 it was 660 Mw, nearly 25 times greater in my own life with the industry.

A projection of those figures to 1966 and 1976 causes one to wonder, do we have the brains and know-how to keep up with the trend? Or to use the industry as a whole, we might well ask, are we the people capable of doing as much in the next ten years as was done by our predecessors in the 77 years since Edison's great discovery? To re-phrase that question and use our own company figures (because that is how I keep my perspective), can we, based upon estimated construction dollar expenditures, do 40 years' work in this year and the next two? To keep our economic structure sound, that is what it will take. With our present strong foundation, we must make broad-gauge plans, that will appeal to customers, stockholders and to the men and women who work with us now, as well as the young, new, talented ones that we must attract to this great industry.

My subject, "Keeping the Company's Economic Structure Sound," is a most intriguing one to me for several reasons. First of all, it presupposes that the structures are now sound. Possibly that is true, but certainly investors do not feel that all companies are the same or possess the same degree of soundness. For example, an investment banking group recently released statistics of a large number of electric utilities which gave a return on common stock of 3.8 to 5.9 per cent, and it listed common stock prices in times earnings ratios of from 10 to 20. Of course, the areas served have some influence on the figures and account for the variations to some extent, but there is no certain geographic pattern. The answer lies deeper, and we must finally go back to people, and not alone to the so-called management group, but to all of those who are associated with the particular corporate enterprise for this wide appraisal difference.

Two-way Communications Basic

And so, without minimizing any of the factors of sound economics of our industry, such as proper financing, remunerative rate structure, steady growth, continuing technical advances in generation, transmission and distribution, I shall suggest that a healthy, continuous, two-way system of communications between employees throughout the company is perhaps the most basic and necessary element in "Keeping the Company's Economic Structure Sound."

Before we go further, I would like to consider with you briefly the fundamental importance of communications in its broad sense, in the chain, if you please, that links information with human conduct. Not so long ago, a predecessor of mine (in this job of serving as President of EEI), made this thought-stimulating statement: "The complex of human thoughts, actions, responses, opinions, emotions and beliefs among his employees, stockholders, customers and fellow citizens holds the basic answer to the continued success and prosperity of his Company, his Community, even

his Country and its way of life."

A Natural Conclusion

If we agree with his statement, we can then most naturally arrive at the conclusion that the possession of information or knowledge has a most profound effect on the opinions, responses and actions of the individual. Possession of information then, or lack of it, among those associated with us in this business—be they employees, stockholders, customers or citizens in general—holds the basic answer to the success and prosperity, or otherwise, of the individual and his company.

All too often discussions and actions, great or small, of individuals, groups and even countries are made on little more than opinions, prejudices and emotional responses based upon:

1. Lack of information.
2. Faulty information.
3. Faulty evaluation or interpretation of information.

Certainly the capacity of the individual for receiving communications, his willingness to learn, his natural talents and limitations, affect the range and extent of the useful application of his information and knowledge.

Education—The Cornerstone

Experience seems to point out that the good results from possession of information far outweigh the potential for ill use. We could go even farther and say that the cornerstone of our whole economic order is education for everyone, and an informed, intelligent electorate is our assurance of continued progress.

This philosophical digression has been taken only to emphasize the great impact of information and its use on human behavior and to further stress the life blood effect of communications. As I end this theoretical soliloquy, let me repeat, "All too often, discussions and actions, great or small, are made on little more than opinions, prejudices and emotional responses based upon lack of information, or faulty information, or faulty evaluation of information."

All of the observations made heretofore have one important characteristic in common; that is, they are related to *education.* John Truslow Adams, noted American historian and essayist, once said, "There are obviously two educations. One should teach us how to make a living and the other how to live." In my opinion, during the past fifty years, we in the electric industry have learned how to make a living; now we must turn to the equally important problem of *"how to live."*

The Weakest Link

Certainly anyone who has followed the technical advances in generation, the automation in transmission and distribution, the machine applications of accounting, the effective selling programs, and enlightened employee relations programs, realizes that we have learned "how to make a living," so to speak. This brings us back to the conclusion that our weakest link is in education and communication. No doubt almost all of you realize this just as much as I do, but we all need to be reminded of it so that something will be done about it.

That is where the industrial relations group has a very great opportunity because almost all managements, with the many demands on their time, do not have time to consider a program, much less to follow it through. They need you to be the catalytic to develop a continuing education program and above all a communications plan that runs both directions, for as you well know, communications is not a one-way street.

The basic fact about communications is that it is man's first recognition of another man's personality. The simple hello from one man to another, whether given in the beginning of time between the first humans or between you and me as we meet today, is the common denominator by which we recognize that we are personalities. The very fact that I speak to you implies on my part that you know you are being spoken to and you should give a response that will acknowledge my greeting. Refinements of the methods and means of communications have taken place so that today there is not only greater rapidity of communications, but it is easier to talk to a greater number, and at greater distances. These very facts have tended to make the communicators more distant and thereby more impersonal. People tend to become numbers on cards, and their qualities and attributes tend to become square holes made by a punch-card machine. As useful as these devices may be in their continuing development and progress, our communication problem increases because of them.

Much More to be Done

Recent surveys show that more and more attention is being given to this problem. It is a growing field, and there is room for a lot more to be done. Not only do we have to correct situations which have been allowed to slide, but in addition we have to expand our communication activities to take care of needs which are arising today and will arise tomorrow.

I think that most business and industrial organizations in the United States will admit to being somewhat behind the times in their communications efforts. Perhaps this accounts in some measure for the greatly increased activity we have seen in this field in recent years. Firms which have seen the light in recent years will confess a certain apathy a few years ago on the part of top-level management.

Apathy a Source of Trouble

It is this apathy which exists, or did exist, which is in a way responsible for one of the most common defects in a communications system. The people at the top had other things to worry about besides communications. They left the job of communicating to the best devices of the people at the departmental level. As a result, where a desperate need arose for communication within a department, that department took the necessary action to fulfill the need. Thus in a given company, almost unbeknownst to management, there may be a number of small communications systems, each plugging its own purpose, each guided by its own supervisors. Over the years these systems have become ingrown, and perhaps have taken root and are known now as the employee information program. They lack leadership at the higher echelons. Like "Topsy," they "just growed," often without direction from above, functioning only in one department or in one plant. No one of the people responsible for them has enough authority to pull them all together and coordinate them. Furthermore, they do not necessarily carry the voice of top management. Conversely, they are apt to be ineffective at the other end of a two-way

system, as far as today's purposes are concerned.

This does not mean that we should throw them out. What it does mean is that someone should take an active interest in improving them. That someone must necessarily be one of the top-ranking officers of the company, who can speak for the company through these media. Tie them together, give them a head, and there you have the skeleton of an effective communications system. They need direction. Management should supply it. It certainly isn't going to come from anywhere else.

Coordination the Key

Basically, we are trying to lay out an efficient scheme for getting information quickly from top management down to the operating level, and vice versa. This implies a well-ordered coordination of all communications media—the employees' conference, the news letter, the house organ, the bulletin board, and just plain man to man talk. All should work together to provide the extent of communications necessary to fit today's requirements. The impact of the message is greater if it is reinforced from several sources.

Let us suppose that we have developed a system of carrying the thoughts of employees to top management and the thoughts of top management—not of the junior executives, mind you, but top management—down to the employees. The next question is, what'll we tell them? The answer is fairly obvious. We should tell them what they want to know, as well as what they should know.

All Employees Interested

Primarily, all employees—from the president of the company on down—are interested in the company as the company's position affects their jobs. They are interested in job security, employee benefits, the company's plans for expansion, management's appraisal of the business outlook, job safety, and the financial record of the company. They are interested in these things because each of them directly affects the employee. They are not interested in them just out of sympathy for management. Too often company communications speak only in terms of management's interest in the problem. Too often we neglect the thought that the employee is well off only as his company prospers.

Sources of Employee Information

Opinion Research recently made a survey in which they asked where the employees now get most of their information about the company. Twenty-seven per cent of the employees questioned replied, "From the grapevine." When asked where they would like to get their information from, 47 per cent said they preferred getting it from company publications, and 44 per cent said they would prefer to get it from their supervisors. These percentages amount to an ultimatum. They want facts. It is our job to see that they get them.

Let us see how we can best do that job. The survey I mentioned showed that a great number of employees like to get their information in a face-to-face meeting with their supervisors. We realize quickly that we can't have our supervisors running around from employee to employee, so it is obvious that some sort of employees' conference or round table is necessary if we are to follow this approach. Incidentally, this approach seems to be the best available by far. It not only communicates ideas through the senses of sight and sound, which has been proven to be the most effective combination, but it gives the employee a chance to digest those ideas. He can get instant clarification of mistaken impressions. He gets a chance to voice his opinion—to use the other end of the two-way system we are trying to work out. He gets a chance to see what his fellow employees think about these things. For him, it is a stimulating experience. In order to carry out such a program, we need supervisors who are trained in conference leadership. We do not want men who will make speeches; we want men who are trained to bring about frank and open discussions.

A further advantage of the discussion meeting is the fact that visual aids such as charts, props, and films can be used, both to convey ideas and to provoke discussion.

Conference Subjects

At these meetings, first of all, the company should answer the demand for information about itself. Employees want to know and have a right to know what is going on. They are better employees if they understand the company's position as it affects them.

Secondly, the program should bring to the employees facts about our industry. Electricity has had a profound effect on industry, indeed on our daily lives. This information should be brought out. It is something that could be a source of pride to every power company employee.

As a third subject, the problem of government power should be covered. In any discussion of government power, a power company employee speaks with authority among his friends. If he has the facts, he can do us much good. If he hasn't, he can only do us harm. There are 167 customers for each employee. The employee can help in his and our fight against Socialism.

The American System

To do this, he needs facts on the American system. He needs to know how it works and why it works. He needs to know the facts about freedom. Most of us take it for granted. We forget that we can lose it. For the most part, we don't realize what it is or what it means. Let us tell our people what it is and how hard it has been for man to get it. Then they'll want to keep it.

Needless to say, these subjects should not be confined to the conferences. They should be treated through all the communications media in a well-coordinated program. The company's publications can do an excellent job with them. Incidentally, there is another feature about company publications that makes them attractive.

The Woman's Influence

That is the fact that they get into the home. I don't have to tell you how important an influence a woman can be. That is a job for the philosophers. But the point is that she is just as interested as he is in what's going on, and the why's and wherefore's of the business. The family should share in a man's pride in his work. Women spend most of the money, so they are interested in what their men earn. They and the children are more than likely the beneficiaries of some of our great benefit

(*Continued on page* 306)

Third Annual Workshop Scheduled by EEI Area Development Committee

"Planned Progress Through Area Development" Theme of Minneapolis Meeting

"PLANNED Progress Through Area Development" is the theme of the Area Development Committee's Third Annual Workshop, announced recently by John R. Frederick, Wisconsin Power and Light Co., Chairman of the Committee. It will be held Oct. 4-5 at the Hotel Radisson in Minneapolis, Minn. S. F. McGowan, Nothern States Power Co. (Minn.) is Workshop Chairman.

The program will feature talks by persons outstanding in area and community development work, as well as by leaders in the electric utility industry. Panel discussions and workshop sessions covering new activities in the field of area development will round out the two-day program, and assure everyone attending an opportunity to participate.

Outstanding Speakers

The opening address, "Area Development and the Electric Utility Industry," will be delivered by Edwin Vennard, Vice President and Managing Director of the Institute. He will discuss the importance of area development as a means for balancing the growth of the area, improving public relations, and strengthening the financial position of the utilities. Herbert H. Smith, Executive Director of Community Planning Associates, Inc., will talk on "Regional Planning." Following his address, Mr. Smith will be moderator during a panel discussion of "Several Approaches to Community Planning." Serving as panel members will be C. David Loeks, Director of Planning, City Planning Board of St. Paul, Minn.; Robert G. Cerny, Thorshov & Cerny, Inc., Architects, Minneapolis, Minn.; Rohland H. Thomssen, Clapp-Thomssen Co., Realtors, St. Paul, Minn.; and C. S. Cronkright, Public Service Electric and Gas Co., Newark, New Jersey.

"Allies and Their Responsibilities in Industrial Development Programs" is the topic on which Aime V. Carkhuff will address the first-day luncheon meeting. Mr. Carkhuff, an industrial realtor since 1922, is a past National President of the Society of Industrial Realtors, as well as past president of several other major area realty associations.

Workshop Sessions

Five sessions, running concurrently during the afternoon, will afford a choice of participation-type activities of various interests. A panel discussion on "Getting Started in Area Development" will be of particular interest to those whose work in this field is just beginning. Organization, promotion, operating costs, and sources of information are among the subjects which will be covered. Leaders for this session will be a number of utility executives with experience in this work. The remaining four sessions will be workshop sessions devoted to round-table discussions of Publicity and Direct Mail Campaigns, Research, What Part of Area Development Must the Community Do for Itself, and How to Work With Cooperating Agencies. The leaders of these four sessions, in the same order, will be Clark P. Spellman, Virginia Electric and Power Co.; A. V. K. Babcock, Arizona Public Service Co.; William H. Kennedy, Jr., Arkansas Power & Light Co.; and William J. Jamieson, General Public Utilities Corp.

Dinner Meeting Planned

Allen S. King, President of Northern States Power Co. (Minn.), host company to the conference, will address the dinner meeting. He will draw on his more than 30 years of utility experience for his message which bears the provocative title "Friendly Enemies."

Opening the second day of the meeting will be Dr. George C. Smith, who will speak on "The Industrial Outlook." Dr. Smith is Vice President and Economist, and a Director of F. W. Dodge Corp, and is the author of many articles on business subjects. "Outlook for Major Shifts in Resources Development" will be the subject of a talk by Dr. John Borchert of the University of Minnesota, a specialist in the study of natural resources and land utilization. To conclude the morning program there will be a panel discussion on "Financing Industrial Growth." Fred Herr, Jr., Central & South West Corp., will be the moderator, while Lincoln Baylies, New England Power Service Co., and Jacques Cunningham, Public Service Co. of Oklahoma, will serve as panel members.

Concluding Session

The luncheon meeting will hear first from Thomas R. Reid, Director of Civic Affairs, Ford Motor Co., whose topic will be "Sales Techniques Used by Successful Area Developers." An inspirational address, "The Worth of a Man," by Dr. Arnold H. Lowe, Pastor of Westminster Presbyterian Church in Minneapolis, will follow, and Committee Chairman Frederick will present a "Summary of the Workshop" to conclude the conference.

Members of the Workshop Program Committee are R. M. Atkins, The Cleveland Electric Illuminating Co., Chairman; H. L. Brewer, Consumers Power Co.; H. D. Feltenstein, Jr., Central Illinois Light Co.; Frederick Herr, Jr., Central & South West Corp.; and W. J. Jamieson, General Public Utilities Corp.

Recent Legislation Affecting the Electric Utility Industry

By Walter H. Sammis
President, Pennsylvania Power Company

An address before the Forty-Ninth Annual Meeting of the Pennsylvania Electric Association, Pittsburgh, Pa., September 25, 1956.

IT is a privilege to welcome you to the 49th annual meeting of the Pennsylvania Electric Association. This two-day meeting should be a most fruitful one, and you should return to your companies with renewed enthusiasm and some new viewpoints toward some of our problems.

Results the Work of Many

The work of the association represents the sum of the efforts of a great many individuals. Active committees cover every phase of electric utility operations. The benefits go even further than the results of the specific projects undertaken by committees, for the training and association may in the long run be of even greater value to the industry. Probably no other state association in the country has developed this committee work on anywhere near the scope as has the Pennsylvania Electric Association, and the fact that much of your committee work attracts nationwide attention attests to the value which is placed upon it by the utility industry. Every member of every committee should feel proud of the work which is being done. We in Pennsylvania Power Co. are happy that individuals in our organization are contributing to these efforts and are in turn gaining benefits through their contacts with individuals working along similar lines in other companies throughout the state.

Three years ago, when President of the Edison Electric Institute, I addressed your annual meeting in Philadelphia on the subject "Setting Our Sights"—how far we had come at that time, management's objectives for the future, and the road blocks in the path of those goals.

"Setting Our Sights on the Future" is the theme of this year's convention and it will be well-handled by our guest speakers. With your indulgence I would like to direct your attention for a few moments to some of the happenings in the recently adjourned session of Congress—the 84th Congress, 2nd Session. As usual, many bills affecting the investor-owned electric utility industry were before the Congress.

Before entering upon a detailed discussion of these legislative matters, it is well to again call your attention to the rapidity of Federal encroachment in the electric power field. We, in the utility field, can talk loudly and long about competition from coal, gas and other fuels, but our greatest competitor is the Federal government. A few figures will readily prove this.

In 1930 the kilowatt capacity of all Federal power installations in this country amounted to 7/10ths of 1 per cent of the total for the entire electric utility industry. By 1956 the percentage was almost 15 per cent of the industry's total. On a capacity basis this means competition from the Federal government has multiplied 75 times in 25 years.

This is a grave matter. Some might say it demands serious consideration on the part of our industry. In my opinion it demands more than serious consideration; it demands sustained united action.

Encroachment Threatens All Business

We in the utility business see the ever-growing invasion of the power business by government as a threat to all business. For make no mistake —if government can go into the power business, it can go into the steel business, automobile business, shoe business, grocery business, or any business. There is no limit to government competition with business, if the American people do not put a stop to the trend.

In the session of Congress recently ended, I am glad to say that some effective progress was made toward slowing up Federal power expansion.

Bills of Particular Interest to Us

Among the bills of particular interest which passed both Houses but were vetoed by the President was Senate Bill S3338. As passed unanimously by the Senate, the bill covered the disposition of all power under the control of the Federal government, but later the House Committee on Interior and Insular Affairs limited its application to The Southwestern Power Administration (SWPA).

The SWPA operates six hydro plants in Texas, Oklahoma, Arkansas, and Missouri, and will ultimately have a system of 22 plants and 1,745,000 kilowatts if all projects authorized are constructed. Ever since it began business, SWPA has been involved in a conflict over the cost to be allocated to power facilities at multi-purpose dams. Although the record showed that SWPA was selling power below cost and running in the red, under this bill rates would have been frozen and the bill would have prevented until June 30, 1957, any increase in rates to REA cooperatives and other preference customers. At the same time, as amended in the House Committee the bill directed SWPA to renegotiate existing power contracts with non-preference customers. Another bad feature of the House Committee amendments was a provision directing that only incremental costs should be used in establishing rate schedules—that is, no part of the cost of any multi-purpose dam was to be charged to power, only the cost of the powerhouse and equipment associated with it. Fortunately, the latter two objectionable features were eliminated from the bill before passage by the House.

The bill was considered by the House on the last day of the session. It passed the House by a vote of 201 to 140 and the Senate accepted the amendment limiting the application to SWPA. Subsequently, President Eisenhower vetoed the bill. He vetoed it on the premise that sound management required that the government fix rates for electric power from Federal projects that would return the taxpayers' investment, with interest, within a reasonable time.

"Pork Barrel" Bill Vetoed

The President also vetoed the $1.6 billion omnibus public works bill, better known as the "pork barrel" bill for rivers' and harbors' improvements, minor flood control projects and miscellaneous pet projects of Congressmen. The utility industry was vitally interested in many of these projects. The President stated he vetoed this bill because about $500 million, or one-third of the proposed expenditures, had not been reviewed by the Bureau of the Budget or the Army Engineers or by states or local interests that might wish to participate in the projects on a partnership basis. The President pointed out that the bill carried no appropriations, only authorizations, therefore no work could be started and nothing was lost by the delay, and the next Congress could pass legislation and appropriate the necessary funds for the projects already investigated and approved.

Congress also passed a bill providing for the $1.6 billion Upper Colorado project, authorizing the building of four storage and eleven participating projects by the Federal government in the Upper Colorado River Basin, involving Colorado, Utah, Wyoming and New Mexico. About 1,000,000 kilowatts of power is involved, although power is secondary to the use of water for domestic and agricultural purposes. Ten Rocky Mountain area power companies offered to market the power. However, the committee which handled the legislation in Congress declared "established preferences and sound business principles" should prevail.

Bills Not Reported Out of Committee

Among the bills that failed of enactment into law because of passage in only one branch of Congress, or because of failure to be reported out of committee, were the Gore-Holifield Federal Atomic Power Reactor Bill, the Niagara Redevelopment Bill, the Federal Hell's Canyon Bill, and the TVA Revenue Bond Financing Bills.

At the expense of repeating some things some of you may know, I wish to comment on the bills briefly—and in those instances where they came to a vote, to direct your attention to the closeness of the vote.

Gore-Holifield Atomic Power Bill

First the Gore-Holifield Atomic Power Bill. The bill as originally introduced in the Senate by Senator Gore and in the House by Congressman Holifield directed the Atomic Energy Commission (AEC) to build six large-scale nuclear power plants in six geographical areas of the United States for the declared purpose of demonstrating the practical value of atomic power to industry and commerce. (Any resemblance to the proposed Norris bill of some years ago for six additional TVA's in six other geographical areas of the country to establish yardsticks for the price of electric power to the ultimate consumer was, as they say in the movies, "purely coincidental.") The plants proposed in the program were to be in addition to plants already licensed by AEC for development by private utilities or public power groups. The bill declared it to be "the intent of Congress that the full resources of the United States should be made available to advance the art of generation of electric energy from nuclear energy at the maximum possible rate." This was referred to as the "crash" program for government development.

To its everlasting credit, our industry promptly marshalled the facts, and representatives went to Washington and testified from the record that there was no need for the government to embark on a "crash" program; that this country, through AEC, investor-owned electric utility companies and other organizations, had built or is building or planning more nuclear reactors than all other nations combined; that 44 investor-owned companies already were participating in the development of seven large commercial-type atomic-electric plants and two small plants; that about 300 million private enterprise dollars are involved in the planning, construction, and attendant research for these plants.

Nevertheless, despite this testimony, the advocates' pressure to further the Federal government in the power business was so strong that the Gore-Holifield bill was amended to require AEC to embark upon an accelerated program of building not only large-scale reactors, but also a number of smaller reactors. Four hundred million dollars was to be authorized for the purpose but, of course, this was to be only a starter. The bill posed a serious threat to the future of the investor-owned power industry, since there was nothing in the bill to prohibit the Federal government from building reactor plants up to 50,000 kilowatts anywhere it pleased and selling the power to preference customers.

The bill passed the Senate by a vote of 49 to 40. Close!

The bill underwent a number of helpful amendments in the House, to-wit: the location of all reactor plants, big and small, was limited to AEC sites; energy generated was limited to use by AEC; no experimental reactors were to be built until private utilities and other power suppliers were given first opportunity to construct the plants.

The vote in the House came on a motion to recommit the bill to the Joint Committee on Atomic Energy, which motion carried 203 to 191, thus killing the bill for that session of Congress.

The Niagara Bill

Now as to the Niagara Bill. Niagara as you know is a 100 per cent power project—no flood control, no navigation, no irrigation, no other function involved—just power. The Lehman Bill (S. 1823) passed the Senate by a vote of 48 to 39. The companion bill was introduced in the House as the Buckley Bill (HR 11477), but died because of failure to be reported out by the House Rules Committee. The bill followed the preference line all the way. It provided for construction by the New York Power Authority and the sale of electricity by the Authority on equal preference to local and state public agencies, to U. S. defense agencies, to REA cooperatives, and it also apportioned to preference customers in adjoining states within reasonable transmission distance a reasonable portion of the power available for sale. The bill also provided that the State Author-

ity could acquire or build necessary transmission lines and further provided that any contracts executed with private utilities should be "flexible" so as to permit withdrawal of power therefrom to meet the needs of preference customers. (If you are familiar with Tennessee—where private power is practically no longer existent—you will realize what this provision for building or acquiring transmission lines could mean.)

The Hell's Canyon Bill

Now, let's take a quick look at the Hell's Canyon Bill (S. 1333; HR 4719). It was defeated in the Senate 51 to 41. There was no House action. This bill was fostered by public power advocates despite the fact that the Federal Power Commission after extensive hearings had granted licenses in 1955 to Idaho Power Company to build three dams on the Snake River. The company is already at work building the first dam—Brownlee Dam—scheduled for completion in 1958. Turned down in a lower court, opponents of private enterprise are trying to have the work halted in a higher Federal Court in favor of a single Federal high dam.

Hell's Canyon is not far from being another Niagara in that it's almost entirely a power project. There is no navigation, no irrigation, and only very little flood control. The Federal Power Commission in its determination found that flood control, navigation and recreation "could be effectuated to about the same extent under either plan," but that under private development these benefits "will be realized without expense to the United States." The Commission concluded that Idaho Power's three-dam plan "is best adapted to a comprehensive plan" for developing the Snake River. You will undoubtedly hear more about Hell's Canyon in the coming Presidential campaign.

TVA Revenue Bond Financing

Finally, with respect to TVA revenue bond financing, bills were introduced in both houses of Congress. Hearings were conducted by a Senate subcommittee on the Kerr bill (S. 2373) introduced in the Senate. Mr. L. V. Sutton, President of Carolina Power & Light Co., on behalf of the U. S. Chamber of Commerce, and I, on behalf of the investor-owned electric utility industry, testified before this subcommittee in opposition to the Kerr bill. No hearings were conducted by any House Committee on companion bills introduced in the House by Representatives Davis, Jones and Buckley. Late in the session another Senate bill (S. 3964) was introduced by Senator Martin of Pennsylvania, that would have eliminated some of the objectionable features of the Kerr bill, but the Martin bill was not considered in committee. Senator Kerr's bill was considered in committee, but the various provisions of the bill became such a matter of controversy among the committee's members that a bill was never reported out by the full Senate Committee.

Hard Work Ahead

While the outcome of these various pieces of legislation offers definite encouragement to all of us, we should realize that the results accomplished were aided by the tremendous amount of hard work on the part of many utility people the country over. I doubt that the industry has ever worked harder or more effectively in marshalling and presenting the facts to our lawmakers in Washington. But it was barely enough—in most cases we got by with a squeak. The industry, therefore, cannot rest on these results. The proponents of Federal power will most certainly be back in the next session of Congress more determined than ever, and we shall have to work all the harder to preserve our gains.

How Can You Help?

This comes down to something more than a Washington problem. It's a struggle at the grass roots. How can you help?

We must all continue to point out to our friends, neighbors and acquaintances the unfair competition with which government conducts its power business. In fact, why should the government be in this business in the first place? Is it a function of government to be in proprietary business in competition with its citizens?

The Federal government needs tax monies to operate and every industry should pay its fair share of taxes. Where government goes into proprietary business, it should pay taxes to the same extent and on an equal basis with investor-owned proprietary business; otherwise, the customers of private business will not enjoy the same advantages as customers of government in business. But quite the opposite is true. Government in business pays no Federal taxes and little, if any, payments in lieu of state or local taxes. We need to keep hammering home this tax inequality story. In some instances even interest on the capital it employs is not charged against the government proprietary operation.

If the government with the monies of its citizens is going to compete with them in business, it should operate government proprietary business on an equal basis with private proprietary business, charging to its business the true costs of doing business, and not base government proprietary business prices on subsidized costs at the expense of the customers of private business and the general taxpayer.

Discrimination by Preference

Another discrimination practiced by the Federal government in the power business, the vital significance of which must also be driven home to the American people, is the preference clause — the preference which Congress has decreed shall be given to public bodies and cooperatives in the sale of electricity from Federal power projects. This discrimination against the customers of the private utilities (they number 80 per cent of all customers) is unfair. It should be eliminated so that customers of private enterprise, cooperatives or government operations will be treated alike. Yet, you will note the preference clause runs through practically every legislative act of recent years affecting our industry.

Eternal Vigilance

Only an informed and enlightened public can put a stop to these various unfair practices. You can make the job easier of fulfillment by seeing to it that your friends and neighbors, and through them your Congressmen, are fully advised of the inequities that exist and how the great majority will benefit from a fair and proper solution or elimination of these unfair practices. Eternal vigilance is the price of freedom. It certainly applies to the preservation of our business.

National HOUSEPOWER Campaign Covers First Lap of Home Wiring Modernization Race

A TREMENDOUS accomplishment has already been made by EEI's national promotion of HOUSEPOWER. However, the campaign is really only just beginning to get into gear. The goal of the HOUSEPOWER program is the rewiring of twenty million American homes during the next ten years. The first step in attaining this goal is to make the public aware of what HOUSEPOWER means.

HOUSEPOWER Recognized By 1 in 5

The fact that this story is getting across to the consumer is well illustrated by documented research which proves the word HOUSEPOWER can be correctly identified today by 19.9% of the consumers. In other words, one out of five people have learned to identify HOUSEPOWER during the first few months of the campaign. Further evidence of the effectiveness of the national promotion is the fact that by the closing date of the $100,000 HOUSEPOWER Contest, September 30, almost 300,000 entries will have been received, although the research organization conducting the contest had estimated only a fraction of that figure. This number of returns shows high consumer recognition.

Excellent Industry Response

The response of the electrical industry to the HOUSEPOWER campaign is illustrated by the fact that for every dollar spent to date by EEI on national advertising, electrical manufacturers have spent three dollars. Westinghouse, for example, devoted ten live TV commercials to HOUSEPOWER during each of the two political conventions, and also twenty radio commercials. U. S. Steel put on a 2½-minute, $40,000 commercial on the July 4th United States Steel Hour. Philco presented the HOUSEPOWER story to radio and TV audiences numbering into the millions during its sponsorship of the political conventions. More than 1,000 electrical appliances worth some $90,000 in retail value were contributed by 27 electrical manufacturers for HOUSEPOWER Contest prizes. In addition to this fine national support, large-scale local support has been given to the program by utility companies all over the country, and by distributors, dealers, and the National Electrical Contractors Association on both local and national levels. Other industry programs, too, have been actively supporting the HOUSEPOWER promotion, including "Live Better, Electrically" and the National Adequate Wiring Bureau programs. The International Brotherhood of Electrical Workers has publicly endorsed the HOUSEPOWER program and has put into action a plan to take in more electricians to do residential rewiring.

Sales Training Course

A sales training course for electrical contractors and their salesmen has been developed by EEI in cooperation with NECA, under the title "HOUSEPOWER Forum on Residential Wiring Modernization." This course presents, in easy-to-use form, the latest sales approaches and techniques, and contains such aids as long-playing records, sound and silent slide films, flip-chart, take-home booklets, leaders' manual and meeting guides, and a salesman's visual presentation.

This intensive sales training course is intended primarily for the training of contractors and salesmen through utility company sponsorship, and it consists of six two-hour meetings or three three-hour meetings. During September, the course was demonstrated to utility company representatives at a meeting in New York City, and to another group in Chicago. As a result of these "train the trainer" sessions, a large number of utility companies have ordered the training courses and are now signing up local contractors who wish to attend the local training meetings.

Closer Liaison Next Year

Next year will see even more intensive promotion of HOUSEPOWER and still closer liaison between EEI and the National Adequate Wiring Bureau's program. EEI's program will follow the basic pattern established in 1956. Continuing support is also expected from the trade press which has given considerable editorial space to the program this year.

Objectives of HOUSEPOWER in 1957

Objectives of the 1957 HOUSEPOWER promotion are:

(1) To build wider consumer recognition;

(2) To increase trade ally enthusiasm;

(3) To integrate HOUSEPOWER even more completely with other industry programs;

(4) To concentrate on accelerating selling action machinery, and

(5) To show specific results in more rewired homes.

Local advertising and promotion are to be supported by a "grass roots" program of promotion elements supplied by EEI, and inter-industry coordination will be continued and expanded at national and local levels through personal contacts, presentations, bulletins, newsletters and other forms of communication.

With the support of utilities, contractors, dealers, manufacturers, trade associations, the press and, in fact, all whose aim it is to help Americans to Live Better Electrically with Full HOUSEPOWER, the program will become an extremely powerful factor in the increasing standard of living of Mr. and Mrs. America.

Meeting the Load Growth

By Charles E. Oakes
President, Pennsylvania Power & Light Company

An address before the 9th Annual EEI Industrial Relations Round Table Conference, Chicago, Ill., September 18, 1956

HERE in this amazing country of ours, we have built up a great industrial civilization. American industry is unmatched anywhere. American business, in all its complications, is an essential part of the life of every citizen. The goods and services pouring in ever-increasing amounts from our industries have added greatly to our material welfare —have built up our strength as a nation so that today our country stands in a position of pre-eminence among the world's peoples.

Progress a Product of Freedom

Business and industry are the brightest hope for our continued improvement. This we have come to accept and to expect. In fact, so accustomed have we become to an increasing standard of living that looking forward and upward has become habit. Progress is a prime product of freedom and of our American civilization. But progress is synonymous with growth, both spiritual and physical. And it is our responsibility as businessmen to understand the forces which will best stimulate, will most effectively reinforce and improve the social and economic structure.

Electricity is Vital

Our industry is a vital part of the American economy. Electric power turns the wheels of commerce and industry, eases the burden of the farmer and provides a better life in the home. Electric power affords a complete measure of the striking accomplishment of our whole economy. It truly records our progressive spirit. It provides a real measure of where we have been, and it is for this reason that the question of what we see ahead for our industry and the problems of "Meeting the Load Growth" are so important. To solve them presents an exciting challenge to everyone in our industry.

Our ability to plan and develop has had a serious and sound test since the end of World War II. At the end of the war, the electric industry embarked on what then appeared to be a most ambitious expansion effort. There were those who questioned the size of the rate of growth then being forecast. Doubt was expressed as to our ability to carry the load at the rapid rate then envisioned. A good many informed people wondered about our ability to finance the whole program.

The succeeding events proved the record-breaking expansion program to have been soundly conceived. It also showed that the electric companies of the nation were still young and virile. The industry made an outstanding record and successfully met the challenge. Everyone in the industry can be proud of our accomplishments. The problems were solved with the same pioneering spirit that has characterized our industry from the beginning. Doubt is no longer in our mind as we look with confidence to the future.

15-Year Forecast

Some few months ago I had studies made of what might lie ahead of the electric utility industry over the next 15 years. Of course, any such extended economic projection must take into consideration those factors which bear directly on the future. A number of basic assumptions had to be made.

A continuation of heavy defense expenditures was assumed for the next 15 years—but no shooting war. Prices were assumed to remain about at the level which has prevailed over the past several years, with no major shifts in the tax burden. It was assumed also that while there may be a slowing or speeding up in the rate of growth or expansion from year to year, these variations will offset one another. It was anticipated that there would be a continuation of present Federal policies designed to encourage private business and block further socialization of our economy.

Some Startling Revelations

These studies gave us some startling pictures. Population was estimated to rise from 165 million to about 200 million people by 1970, with a rise in the labor force from the present total of around 68 million to some 84 million. Gross national product was estimated to reach 600 billion dollars —some 50 per cent higher than the present figure. Increased productivity necessary to achieve a gross national product of this size, to maintain the present standard of living and to increase it in accordance with American ideals, pointed up the fact that the available labor force in itself would be unable to reach the necessary goal. Only through improved output per man-hour could this be accomplished and then only through substantially greater use of electricity. When we placed this in proper perspective, we found that the nation would require a total generation of one trillion, 400 billion kilowatthours by 1970—about three times present levels—and that we would need some 310 million kilowatts of generating capacity to produce this. It was estimated that 80 per cent of this amount would be supplied by the private segment of our industry.

A Large Construction Program

Providing such a vast amount of physical property imposes an enormous financial burden. We estimated that this undertaking would require construction expenditures by the electric companies of 70 billion dollars, 45 billion of which would have to be new money from investors, the remainder coming from internal sources from the day-to-day operations. When it is considered that coincident with this record-breaking development that we

face we must also work out the complicated and difficult problems related to the use of atomic energy, you have some idea of the tremendous task ahead.

Atomic Power Development

We are giving this picture of unprecedented expansion close attention and have related our long-range forecasting to it. Our forecasts take into account growth of the economy country-wide and particularly what has taken place in our section of the country during the past 20 years. We are presently planning ahead based on estimates that our load will grow at a yearly rate of about five and one-half per cent over the next decade. Like other forward-looking companies in the industry, we are continuing to advance the efficiency of conventional fuel-fired generating plants. But we are not overlooking, and our plans contemplate to the fullest practicable extent, the utilization of new energy sources. Our company has been at work for some time with Westinghouse Electric Corp. on the development of our first atomic power plant. We look forward to an in-service date of 1962. This full-scale plant will have a generating capacity of at least 150 thousand kilowatts. Like others in the industry, we believe that private enterprise can and should do this job, and can do it more effectively in the final analysis than can government, and we are acting accordingly. Our atomic plant will be financed entirely by private enterprise.

Load Growth

We constantly study load growth possibilities to make determinations on size, location and need of major generating units to be installed. We take into account the usual things: proximity to load centers and fuel supply, transmission requirements, how the capacity ties to and coordinates with the capacities already installed and planned for the systems with which we are interconnected, and other related matters. Our latest and largest installed units—two of them—have a capability of 160,000 kilowatts each. Now we are looking into the possibility of adding future units of 300,000 kilowatts and larger. Units larger than these are already planned on other systems—one of 450,000 kilowatts by American Gas and Electric Co.—and manufacturers are offering units up to 500,000 capacity. We anticipate that steam pressures and temperatures will continue to be increased as metals are found that can handle these higher temperatures.

Throughout the industry we may expect that more outdoor and semi-outdoor plants will be constructed because of the lower building costs. The push-button control plant, because of its more effective use of manpower, will continue.

Transmission Voltage Increased

Our main transmission system is presently 220 kv. Ultimately, transmission voltages of 330 kv, and possibly higher, will be used. This development will take place as the need for transmission over distances substantially greater than at present are justified by economic or other reasons, and when such higher voltages can be adapted to interconnect effectively the transmission system of one company with another. These changes will come about as suitable powerhouse sites become scarce or if the cost of transporting fuel to available sites becomes even more unbearable.

Presently, Pennsylvania Power & Light Co. has a vast 66 kv system tied together at all times. As 220 kv becomes the long-haul voltage, this 66 kv network will not be expanded to any considerable degree. As it is timely, the 66 kv system will be broken into large local area loops and feeders fed from the 220 kv interconnected systems. This will result in more 66 kv loops and feeders but each shorter than under the present arrangement.

Distribution System Revamped

We are converting much of our distribution system from the old 2300 and 4000 volt supply to 12,000 volt supply. These 12 kv loops and radial feeders are supplied through 66/12 kv substations, and 12 kv is rapidly becoming our standard distribution voltage, except in a few densely built-up areas where the cost of changeover is still prohibitive.

The change from 4 kv to 12 kv is relatively simple and profitable. As we examine the possibility of higher secondary voltage for residential load, we come to a very much more expensive change. While other and higher voltages for service supply are being carefully checked, they are not in the immediate future.

Reliability of Service

As our product performs more services for our customers, they, and we, become more concerned about the quality of service. As we grow and develop the physical system, we keep this important factor in mind. We are constantly improving our voltage control largely through the use of switched capacitors. A number of steps are being taken to guard against service failure. For reliability, all transmission is lightning proofed. Designs anticipate heavy ice loads with high winds — a characteristic condition in our area.

In the distribution system, exposures are being shortened, greater use is made of automatic reclosers, and aerial cable is being used to safeguard against troublesome tree conditions. Underground networks are established as the higher costs can be justified. Our widely-scattered system does not allow for very extensive underground systems at present costs. All equipment is on a preventive maintenance schedule.

Uniformity of Design

Our engineers are alert to the importance of simplicity and uniformity of design in the interest of lowest possible construction, operating and maintenance costs. The continuing move from attended to unattended (automatic) operation results in worth-while operating savings. Still greater use of hot line tools to accomplish line maintenance is indicated to improve service reliability by keeping more circuits in service more of the time, and to reduce maintenance costs by doing the work on a regular work day.

Once facilities are installed and the costs of construction incurred, it becomes imperative to load them up so that they become revenue producing. Particularly is this an important element in our business because of the large amounts of money that must be committed during the extended periods of construction of facilities. So promotion of the use of our product should be geared to getting revenue as soon as possible, and this work should be done while the physical system is expanding.

Business Must be a Good Citizen

The American public looks to business in this day as a responsible citizen of the community through undertaking a broadening of its activities beyond the mere furnishing of goods and services. Sound development and wise planning calls for the electric utility to continue as a good citizen in the communities it serves. It is incumbent on all of us to take a lively interest in the growth and well-being of our communities. We should cooperate with all agencies that are trying to attract industry. The present trend toward decentralization of industry makes it possible for each utility to help industry locate in the place that is best for that enterprise and good for the community. Give-away attractions that amount to piracy should not be countenanced. Properly done, with consideration of the availability of needed manpower, nearness of markets, freight rates, water supply, availability of structures, etc., area development work will produce revenue for the company and enhance your public relations.

The Threat of Socialized Power

It will be purposeless for us to develop load and improve service unless we continue to stay in business. We must stay alert to the efforts of the public power advocates. We must constantly work to show the public the fallacy of socialized power. We must sell free enterprise every day and all of the time. We are presently in a political campaign and the public power boys are once again on the stump in an attempt to destroy confidence in the taxpaying, business-managed utilities. None of us can afford to ignore this ever-present threat or lessen our efforts just because no direct public power efforts to take away our business are being made in our immediate neighborhood. It is a problem to be worked on by every American whether he is immediately and personally involved or not. The subject is important and I urge that you emphasize its seriousness at every opportunity.

Understanding Responsibility

It is imperative that everyone who has responsibility in preparing to meet the load growth understands clearly what that responsibility is. In this matter every major department of every company is vitally concerned. Commercial and sales, along with operating, engineering, construction, financial, legal, public relations, employee relations, must work closely together while coordination at the top combines their efforts to obtain the desired end result. Growth by areas and dates must be forecast, revenues and operating expenses must be accurately estimated, new facilities must be provided through soundly conceived overall plans. We should see that new and existing facilities coordinate in a way to utilize all of the facilities at highest possible efficiency during the useful life of the equipment. We must time the raising of necessary capital so that the most advantageous terms and costs result. We must see that our aims and objectives are presented in the arena of public opinion in a way that is understood.

Our industrial relations people, as well as representatives of all other major functions of the industry, should clearly understand the important responsibility that everyone has to promote good employee relations. The industrial relations man does not produce either good or bad employee relations all by himself. Nor does the operating man single-handedly control the attitudes of his employees by his policies and actions.

Coordinated Action Necessary

Only through combined and coordinated attention and action can there be produced the kind of employee relations so necessary, properly to meet and solve the complex problems in the period of rapid growth ahead.

Now then, what are some of the important considerations in the area of employee relations as we plan to meet the forthcoming load growth? Business leaders have had to learn that as the real owners of business grew in number the leaders had greater responsibility than just seeing to it that the business made money. I believe our industry was among the first to work at the job of trying to put into proper balance the diverse and highly complicated interests of shareowner, customer and employee. This is a never-ending job and attention to this matter must always remain high on our list.

It is our task to see that productivity and efficiency are kept at a high level so that earnings may be satisfactory and rate levels reasonable. Costs must be kept down by the use of efficient equipment and improvement in methods and operation in order that net earnings may be adequate and well maintained. Net earnings are the life blood of the electric business and men of capacity advance only as the business progresses. Rank and file employees sometimes cast a longing eye at an increasing net but, the fact remains, no one wants to be with a company that is not growing and prosperous.

Selecting and Training Personnel

It is incumbent on our employee relations people to cooperate in selecting and training a work force adequate to meet the manpower needs of the future. We must strive to maintain the high degree of stability that is traditional in our industry. While this is continuing, we must preserve or develop the necessary flexibility that enables us to take full advantage of automatic operation and other improved methods. By close contact between the employee relations department and engineering, operating and others, conditions that involve changes in manpower requirements can be anticipated and the extent of such change known well in advance. Union clauses on seniority, progression lines and such that are too restrictive operate to the long-term disadvantage of the employee. If the union contract and management philosophy have been properly conditioned, all sorts of holding arrangements can be worked out to take advantage of natural turnover and normal transfers. In this way the impact of change can be minimized and the individual employee be left with the feeling of being secure.

Everyone Likes a "Good Company"

In addition, there are the usual employee relations matters to reckon with as we prepare to meet the load growth. There can be no reduction in your attention to those considerations that are basic — the natural desire for recognition, fair and reasonable wages, a chance to progress, good working conditions, beneficial programs such as insurance and retirement plans, and so on. I believe the average employee wants his company to be known as a "good company" when viewed through the eyes of his friends and neighbors.

Acute Need for Engineers

Any discussion involving manpower would be incomplete without some reference to the need for engineers. The reported need for engineers far exceeds the number available, and the reported future need exceeds the number of young men who are going to college to study engineering. Worse, it is reported that there are not even enough teachers of engineering subjects. A great many well-qualified people in the educational field are working on this and we should support their efforts. There is no magic solution for the problem. We must interest young men in engineering and make determined efforts to set forth the advantages of a career in the electric utility industry for young engineers.

We in the utility business, as well as a great many other industries, have been guilty in the past, and still are, of using engineers in jobs that do not require graduate engineers. This creates a demand for engineers greater than necessary and calls for work of a type which is not inspiring to them. It is our duty to study each job being done by or planned for an engineer to see if indeed any or all of the work really requires an engineer. The engineers not needed in their present jobs should be reassigned and their work given to someone else. We must upgrade the engineer. It is likely that such an examination will show many engineers are spending from small to large amounts of their time on parts of the job that do not require engineering skill. These functions should be broken out and packaged for others to do. Let us see how many engineering man-hours we can generate by proper work assignments.

Good Communications Essential

Now I am aware we have been talking mostly of the problems that are on our doorstep daily. But closely related and of continuing and growing importance is the problem of improving our communications. The best plans and intentions are not worth much without good communications. Proper communication is needed in the line organization in every company and, equally important, across department lines. Proper communication is needed to employees, to shareowners, to customers, sometimes specifically and sometimes as a whole. Interchange of ideas within the industry is very necessary.

I mention this vital element so that we will not overlook its importance in this load growth problem. I fully realize that there are many among you who are expert in this field and more qualified to speak about it. I believe this matter of communication must have high priority on any list of things we must do in meeting tomorrow's load growth. As the American business system grows, its complexities grow by leaps and bounds. As the need for being understood becomes greater, it becomes harder and harder to gain understanding. Never forget, our critics and antagonists know this full well and will gear their propaganda to attempt to capitalize on it.

In Conclusion

In conclusion, I should like to leave with you the thoughts which I expressed at the Chase-Manhattan Investment Forum a little over a year ago.

The past half century has witnessed unprecedented progress. Striking achievements have taken place in all forms of human endeavor. Communication and transportation have been speeded up and have penetrated remote and inaccessible areas throughout the world. New materials and goods, almost endless in variety, are being turned out in vast quantities for industry and home use. Disease is being conquered and the span of life extended.

Characterizing this tremendous record of progress has been the rapidity with which the startling advances in science have been translated into practical usefulness. In countless ways the pace of progress has been so great as almost to defy our ability to bridge the chasm between past and future.

Our population continues to grow. Our economy promises further substantial expansion. Intensive research and scientific development offer assurance of even greater advances for our country in the coming years. The future which looms ahead holds hopeful promise of even greater social, cultural and material gains. How well we are able to reach tomorrow's goals depends in great measure on what we do today. Wise, long-range planning in the use of our physical, financial and human resources is needed. About these things we are well aware.

But there are other problems to be solved. Progress such as we envision can come only through the employment of creative forces—the full development of technology, the stimulation of incentives and initiative, the preservation of freedom.

Over the years we have made great strides in the effective use of our scientific knowledge in marshaling the physical forces of nature for the benefit of man. But while we have become very proficient in the use of material things, our understanding of human problems has not kept pace. Nevertheless, I believe that there is a growing realization that, while material progress is important, nothing real will have been gained unless we advance our human relations and achieve peace throughout the world.

Our ability to transform these abstractions of today into the realities of tomorrow will measure our contribution toward our nation's future greatness.

Sound Structure

(*Continued from page* 297)

programs such as hospitalization and life insurance, or a pension plan. They advance only as their husbands advance, so they, too, are interested in chances for promotion. They don't like to see their men hurt; they are interested in safety.

A man's work, in short, is just as important to his wife as it is to him. Yet all too often this need of the family for company information is forgotten. Good overall morale depends as much on the family and home life as it does on job conditions.

Management Recognition Important

I feel fairly sure that I haven't told you anything new. After all, these things are your line of work. However, one of your jobs, as I see it, is to continue to impress on your chief executives the need for better communications, because improved communications in one company benefits the whole industry. To keep the economic structure of our companies sound, we must continue to develop workable means of keeping our employees and their families, stockholders, customers, and citizens in general informed, so that we will continue to have a sound foundation to support the growth of the future, and above all, that means people.

Selecting Future Management

By F. L. Larkin
Vice President, Wisconsin Electric Power Company

An address before the 49th Annual Meeting, Pennsylvania Electric Association, Pittsburgh, Pa., Sept. 26, 1956

WHEN we consider that management is basic, unless future management is highly competent, other developments, such as engineering achievements, employee and community relations, and continued progress in efficiency and earning power, will not attain maximum levels, we cannot escape the conclusion that we — today's management — have a great responsibility for assuring competent succession.

So, I have a very much condensed story of one company's search for a "better way" in the selection of people for management—a venture to translate into the complex field of human capacities, personalities, and temperaments the same type of inquisitiveness, the same general pattern of research and appraisal which, when applied to the physical sciences, made American industry one of the most progressive forces in the world.

The goal of the venture—tomorrow's management. The primary task —to seek out those men and women who possess the inherent and frequently hidden qualities of leadership. The second task—to mould them into a management group which will be not only intellectually and technically competent, but possessed of a high concentration of those ingredients which add up to adeptness in human relations—an awareness of a basic fact that, whatever management accomplishes, it does so through people, whether they be employees, customers, the community, governmental agencies, the industry, or just "people."

Manpower Problems

Wisconsin Electric Power Co. emerged from the war years and entered the period of rapid expansion with the same manpower problems confronting most utilities. Our supervisory forces, and the reservoir of mature technical employees from which the management of an electric utility is normally replenished, revealed the unfortunate results of a long dearth of employment which extended from the lean depression years through the war, during which time utilities had great difficulty in employing the kind of people needed in the numbers required. Part of an entire generation of potential management people was missing and, in that situation, the usual process through which people gravitated toward supervisory positions by reason of being next in line, because of demonstrated technical ability, seniority, diligence, loyalty, etc., was not doing a good job.

At that point in time, all over the country "Management Development Programs" descended like a horde of locusts. Almost every management consultant, a great many schools of higher learning, and thousands of individual companies assembled some standard training components under a flossy title, "Management Development," and assumed that, through "souped-up" "high tension" development programs, they had the answer to the apparent shortage of competent candidates for tomorrow's management.

We were not exactly novices in the field of supervisory training and that looked to us like putting the cart before the horse because there are few situations in which the old adage "You can't make a purse out of a sow's ear" is so true as in the development of management people. No amount of training and experience will make first class management out of individuals who are basically unsuited for supervisory and administrative work.

So, our obvious conclusion was that we should make an intensive search for those individuals endowed by nature with the essential ingredients for management work and with direction and guidance they would develop themselves. The truly good executive develops from within, not as the result of training.

The conclusion was simple enough, but its fufillment was immediately confronted with some very practical and very real obstacles. As the organization had grown in size and complexity, it had become more systematized, more impersonal, and the work performed by non-supervisory and many supervisory people had become highly specialized. The place might be "crawling" with potential management people who, because of their narrow, specialized functions, had no opportunity to demonstrate their capacity for leadership. The cream could no longer come to the top because size and specialization had homogenized our working forces, but, as is the case with homogenized milk, we knew the cream was there someplace.

New Tools Needed

We definitely needed a whole new set of tools which would provide an objective means of measurement in at least five areas—basic intelligence, practical judgment, natural interests and preferences, aptitude for supervisory and administrative work (human relations aptitude), and, finally, the very complex matter of personality in terms of known, recognizable psychological phenomena which could affect an individual's capacity for management work.

We had the basic know-how and the trained psychologists on our staff who had for years administered a successful selection program at the employment level. However, selection in the management area for leadership and administrative characteristics was something different and at that time —1947—leading authorities on the development and use of practical selection tests indicated that the literature on the subject yielded little evidence of successful use of tests in the "executive brackets." Accordingly, it was not without some misgivings that we contemplated the task of integrating the relatively "unbelieved," "un-

accepted" social sciences into the process of selecting people for management in a highly technical business which had grown and prospered on the rigid backbone of the engineering sciences.

Time does not permit even a brief discussion of the research, the surveys to determine needs, the search and the finding and shaping of the tools of measurement, the laborious process of validating—proving—the tools, or the many "trial runs," all of which consumed three years of groundwork before we were confident that we had a valid means of appraising management capacity, even in people who had never held a supervisory position—in fact, in people we had never seen before.

Subjective Ratings

In order to provide checks and balances, the evaluation process has three distinct parts — ratings, interviews, tests. First is the subjective rating of individuals, which can only be used for present employees.

Since we want a multiple judgment rating of the employee, we select a minimum of three, preferably five, work associates who are his superiors or his peers. At least one rater, preferably two, should be from outside the employee's department. These raters know the employee well—on the job and frequently off the job. The characteristics on which they are required to rate an employee are well defined and the rating form is a simple one to use.

There are many types of rating forms and we use the very simple procedure of providing a scale for each of eleven characteristics subdivided into several degrees on which the rater can place a check mark at a point he believes measures the degree to which the employee possesses a specific characteristic, such as mental capacity, judgment, human relations, etc. The rater also records his overall opinion of management potential in terms of the various levels of management such as General Foreman, Superintendent, Dept. Head, etc.

This rating procedure is, of course, widely used because it is a simple way of collecting one type of information —namely, "opinions." You can also use a chunk of tallow for a thermometer. It will tell you whether it is hot or cold but it has obvious limitations. The rating procedure is not consistently reliable and should not be used as the sole means of evaluating individuals.

We minimize the subjective character of ratings by using multiple judgment—three to five raters—and we use the ratings only as one of three tools.

The Pattern Interview

The second of the three tools is the pattern interview—sometimes called "depth" interview — conducted by skilled interviewers who are trained psychologists. There is no atmosphere of formality. The trained interviewer uses priming questions and provocative statements fitted to his needs but only to the extent necessary to spark the employee's self-expression within a pattern which will demonstrate the type of thinking he can do, his temperament, logic, insight into basic leadership and human relations problems, and ability to organize his thoughts. Although the results of an interview are normally classified as subjective criteria—that is, conclusions of the interviewer—they approach the objective when the interviewers are skilled technicians whose sole purpose is to obtain information of an almost "clinical" nature which will be used as fill-in material—sidelights—angles—later on when the final appraisal is made using information from all sources. The value of the interview is proportional to the skill of the interviewer.

Objective Tests

The third, and by far the most important, tool for measuring management capacity is a battery of five objective tests. By "objective" we mean that the personal element is largely removed; a camera is objective, a meter is objective. They have no malice or envy—no opinions. These tests are an excellent pickaxe to dig beneath the surface in the areas of intelligence, practical judgment, personality analysis, vocational preferences or interests, and supervisory aptitudes. Of these several categories of human characteristics, the "intelligence factor"—the I.Q.—is the most widely used and probably the least indicative of who is or is not good potential management material. The "personality analysis" is the newest tool and the only one which can truly be called "psychological" or "psychometric." Its function is to reveal that which lies beneath the surface of the individual and which is not readily observable to the interviewer or rater —facets of character frequently not properly recognized or understood by the person possessing them. The application of the tests requires from six to eight hours and normally leaves the subject somewhat limp.

Having the tools and procedures for evaluating individual capacity for management, our next step was to "take stock"—find out what we had; in other words, take an inventory of the entire present management. We knew of certain spots where our supervisory staff was too thin and other places where there was no apparent qualified successor, but we could not assume that the sum total of such cases meant that we had a net shortage of competent management people. There might be unused potential in some groups.

Comprehensive Inventory of Human Assets

The inventory covered every department, every division, every group. In its application to individuals, the process was about as voluntary as filing your income tax return, and it must be that way if the results are to have maximum value. When completed late in 1953—another three years—we had "processed" 571 individuals and evaluated each as to his or her probable maximum capacity in terms of management levels.

One result of the inventory was that, for the first time, we had the other "Balance Sheet," the balance sheet of Management Manpower—not as neatly and precisely as the accountant's balance sheet on which everything is reduced to a common denominator but, nevertheless, an exhibit of our human assets and liabilities and, most important, our reserves of Management Manpower — all in proper focus so that the few men at the top could, for the first time, see in graphic form the entire supervisory force which is spread out over a territory of 12,500 square miles, with an analysis of each individual indicating whether his qualifications and capacities are above or below his present position, what potential, unused capacity he has for greater responsibilities, a prediction of his probable maximum capacity in terms of job level, and his specific strengths and weaknesses.

Condensing the Findings

The next step was to develop a suitable means of presenting the information obtained from the three sources —ratings, interviews, and tests—and condensing the resulting findings and analyses into a form which would be practical for use by those who will evaluate the material and make decisions on promotions, transfers, and reorganizations, without the necessity of reading through reams of detailed recitals and the somewhat technical jargon of psychometrists.

Figures 1 and 2 show the type of report prepared on each individual who is evaluated. These are actual cases with the employee names omitted. In this report, Fig. 1, Mr. X, a man 33 years old and now a subordinate supervisor, is credited with potential supervisory and administrative capacity sufficient to operate successfully at the level of Corporate Officer or Department Head. The report is divided into an analysis chart and an analysis summary. The chart provides a profile of the individual, in terms of eleven characteristics, with a range from poor to excellent. In the case of Mr. X the profile is at the Good to Excellent end of the chart on all characteristics. The colored rectangle in the upper right corner—blue —is our symbol for the level of Officer or Department Head.

The corresponding profile for Mr. Y, Fig. 2, who was evaluated as having capacity for supervision no higher than Gang Foreman or first line Supervisor—and that is being generous —ranges generally from Poor to Average. He is good only in stability. The color code here is red, which means the same thing as a red traffic light—stop.

While the analysis chart is convenient for quickly visualizing the individual's over-all potential for supervisory work, the matter is not so simple that a graph can be said to present an accurate description of that capacity. Accordingly, the written Summary Analysis, which may run from one to three or more pages, is a much more accurate guide in that it not only provides information as to the basis for the appraisal, but lends color and shading to the personalities involved.

A Departmental Glimpse

To get a brief glimpse of one type of visual presentation resulting from the management inventory, that small part of management which is the supervisory staff of one department is shown by Fig. 3.

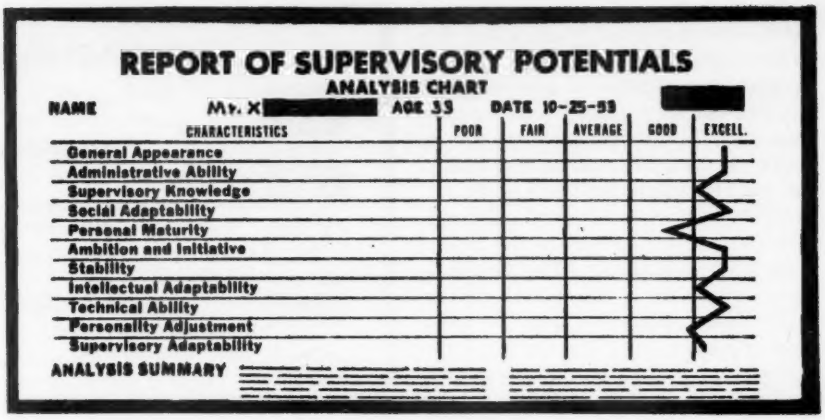

Figure 1

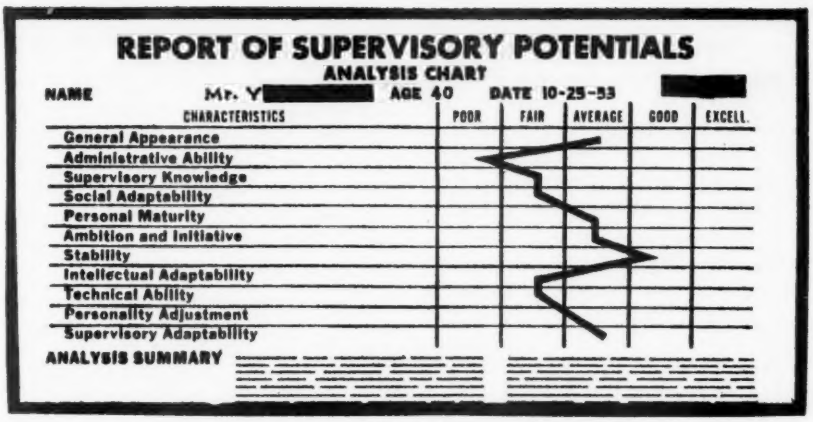

Figure 2

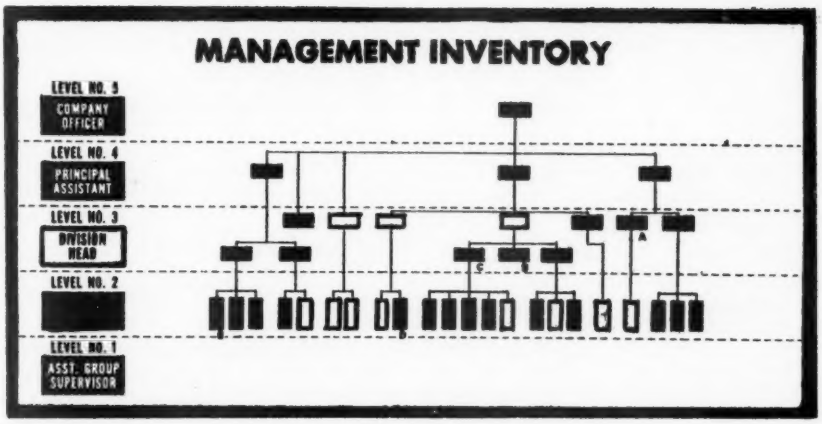

Figure 3

In the left hand margin the color code is shown—blue at the top for Corporate Officer or Department Head, green at the next level for Junior Officer or Principal Assistant, yellow in the middle for Division Head or Superintendent, orange for Group Supervisor or General Foreman, and red for the first line jobs of Gang Foreman or Assistant Group Supervisor.

Each rectangle on the chart represents an individual and the color of the rectangle denotes the evaluation of his maximum potential in terms of the level of supervision at which he can effectively perform. Names and

other data such as age and years of service were omitted in preparing this figure. This organization is in very good shape because of careful selection at the employment level, and because all promotions to supervisory positions have been made on the basis of the appraisals for the past five or six years. There are a few individuals one step higher than the evaluation of capacity would justify. They are indicated by A, B, C, D, and E. On the other hand, there is a wealth of promotable material; for example, all the yellows in the bottom row. At the yellow level are four individuals with predicted capacity for the next to the top—the green—level. The present Principal Assistants—now at the green level—are all well qualified and there are five blue men whose evaluated capacities are sufficient for the top job—two of them now working at the Assistant Group Supervisor level. Incidentally, one of these is the same Mr. X whose profile is shown as Fig. 1.

It is natural that I should show a chart of a good supervisory staff; others were not in as good shape as this one, in fact, some produced a state of severe shock from the number of cases in which the job was already straining the individual's capacity, if not actually beyond his capacity, Fig. 4. On the other hand, we were pleasantly surprised at the number of employees in low level positions who had potential capacity to serve effectively at much higher levels. Many of the non-supervisory people processed were shown to have excellent potential although they had little, if any, opportunity to demonstrate. Many were "buried" in large, specialized working groups where their natural abilities were completely submerged.

Such charts as we have seen for one department, when combined, present to the responsible company officers a complete balance sheet of management with all the assets and liabilities, and their respective values, clearly shown by the color code. Such information in the possession of corporate officers is of great value as a check against recommendations for promotions, salary adjustments, etc. and as a means of knowing where to find a qualified individual when a position must be filled.

This elaborate over-all inventory is, of course, a one-time proposition. It was to answer the question, "What have we got to start with?" You do not ordinarily process the same people again, except in unusual cases.

Figure 4

The Primary Purpose

All of this information is for one primary purpose, to chart and plan tomorrow's management in such a way that there is no doubt about the correct answer to the question, "Is the right man in line?"

The management of any company can be represented by a pyramid. Fewest in number at the top are the officers and department heads. Next their principal assistants, superintendents, and general foremen and at the bottom a large number of first line foremen and supervisors, many of them in highly specialized positions. Any company knows the requirements of the positions with considerable accuracy.

We believe that it is also possible to evaluate the capacities of the individuals with considerable accuracy so that, if one of those first line foremen in the bottom row of the pyramid has the predicted capacity for the top level, another for the next to the top, another for the general foremen level, and the fourth for the first line level where he now is, we can control our management inventory by planning the training, the promotions, and the transfers so that, in a much higher percentage of cases than is usually found, the right man will be in line at the right moment.

Tags on People

That sounds like tying tags on a lot of nice people—prejudging their future. It is! The basic characteristics evaluated seldom change, except possibly in later years and for the worse. If a serious error is made, it will be discovered on later reviews.

The important thing is that, with more precise information available as to the capacity of individuals, each promotion and transfer, each move for training and experience purposes can be planned and an approximate time schedule prepared with greater assurance than heretofore possible that the result will be as predicted.

In discussing with people such as yourselves what has been accomplished in a very short time as the result of finding a "better way" for the selection of management people and in predicting the effects of the new procedures on tomorrow's management, we are frequently confronted with varying degrees of polite skepticism. We don't mind. The best over-all measure of the validity of method is the result—does it work? If a turbo-generator of a given design puts power on the lines at the predicted heat rate, we are not too much concerned if some engineers continue to say that it cannot be done. So it is with the management selection procedures.

The original validity of the process was established by experimental statistical techniques. As the plan builds up its own record from actual operation, additional statistical data pile up to add validity.

Does It Work?

Case studies, however, are more interesting and this discussion will close with a few typical cases to illustrate various phases of the plan in action. The cases are all from the company's files and they serve to translate methods and statistics into something which is very human.

I previously emphasized the unreliability of ratings as the sole criterion for judging the qualifications of an individual, simply because a rating is nothing more than an orderly method of recording personal opinions.

To indicate the degree to which the judgment of raters can be deflected from the target, let us take an actual case which occurred last fall in connection with the selection of a man to be General Foreman. Three competent superiors rated this candidate on eleven characteristics, of which the most important are intelligence, judgment, personality or emotional balance, and human relations capacity.

The composites of the three ratings on each of the four latter characteristics was excellent and without checks and balances these ratings probably would have prevailed.

However, we had the results of the tests and the interviews to check against the ratings of his three superiors—both objective controls. These tests did not confirm the ratings. Whereas he was rated as having excellent intelligence, the completely valid intelligence test showed that it was poor. The excellent Judgment rating proved to be only fair. The Emotional Balance (synonymous with Personality) was extremely poor when measured by tests. The excellent Human Relations (meaning Supervisory Aptitude) was slightly over the line between poor and fair.

You may well ask, "How wrong can people be?" The answer is—and you know it — "Wrong enough to cause serious mistakes." Regardless of whether the extreme deviation between ratings and the more objective measurements was due to poor judgment or design, such things happen and the case illustrates the value of the objective tests to check the personal opinions obtained from ratings.

One of the most heartwarming results of the evaluation procedures is the discovery of management talent which is buried in the organization and, in many instances, would have remained so. We had no actual shortage of competent people for management — we just hadn't recognized them until we developed the means of discovery. The total discovery was great and I have picked cases to illustrate some types of "burial."

Burial by Seniority

Let us take a case of b u r i a l by seniority. At the time of evaluation this man was approaching age 56. He had worked for 32 years in a union-represented manual job where there had been a slavish adherence to seniority in promotions. The work group was small, with little turnover, so even had he been the senior employee, promotion might never have reached him. His s u p e r v i s o r y potentials analysis chart revealed him at the good and excellent end of the scale in all eleven characteristics. His actual capacity is equal to the next to the top job in a large division but, unfortunately, discovery came so late that we will probably never use all of it. As a result of a retirement at the Foreman level, he was promoted and within a matter of months his General Foreman died and he was given that position. He is turning in a very creditable performance. In other words, actual performance has confirmed the prediction of his hidden capacity for supervision.

Burial by Geography

Our next example is a man who was buried by geography — a small division office remote from headquarters. His predicted capacity, as shown in his analysis chart, is that of the top level. He was in a minor supervisory position and, for all practical purposes, was an unknown quantity to people at the main headquarters. He is still in the same job but we know where and what he is and we have ideas as to his future status. More valuable than the discovery of the individual is the demonstration to all employees that distance from headquarters no longer means burial-alive.

Burial by Submergence

The next case illustrates a not uncommon type of burial—this time by reason of submergence by the dominant, aggressive personality of an immediate superior who would not delegate responsibility to a degree which would demonstrate that his subordinate was as good as himself. The one area in which this man's analysis profile shows a characteristic to be as low as average is Social Adaptability, which directly and accurately reflects the results of a long period of submergence. The individual has since been promoted to a position approximately equal to his predicted capacity and, removed from his dominant superior, he has "blossomed out" substantially. He has since been transferred to a still more responsible position. Had it not been for the appraisal of high management capacity, an entirely different individual, with much lower capacity, would have been given the promotions.

Burial by Specialization

The last example of burial is typical of a cause which is becoming altogether too common — burial by specialization. I could show dozens of parallel cases. The analysis chart of this employee indicates capacity for at least the Division Head level. He was engaged in highly specialized accounting work where there was no supervisory or administrative responsibility. He was thoroughly competent but the interview and tests revealed a high degree of frustration because the narrowness of his specialized work provided no opportunity to use his inherent administrative capacity. In many cases this precise situation turns high caliber men into aggressive union officers and stewards or disgruntled employees.

Another department needed a successor to a Division Head who was to retire August, 1953. The position required technical knowledge which the employee did not possess, but it also required supervisory and administrative capacity plus a good sense of public relations, all of which he did possess.

Clearly, without the appraisal processes the need for a competent man to be a Division Head in one department would not have been matched with the unused capacity of a frustrated specialist in another department. With the information on the man's capacity at hand, the matching was a "natural"; and, during the relatively short time the erstwhile specialist has been the head of a repair and maintenance division, he has done an excellent job of reorganization and improvement of operations and morale.

By what other means can a company find management hidden among its large number of highly specialized workers? How long can we, as a nation, afford the tremendous loss of capacity accruing from wasted talent and inferior substitutes, simply because the same industries which have

developed processes to wring the last ounce of capacity out of mechanical equipment are not using the simple processes for finding high grade management talent hidden in their own shops, plants, storerooms, and assembly lines.

The least tangible component of the human being is the one referred to as "Personality." Someone once said, "We are all crazy—it's just a matter of degree." A recent case will be used to indicate the accuracy with which the appraisal procedures predicted trouble in the area of personality adjustment in an individual otherwise well qualified for a high level job.

This employee's chart shows a profile on which the two characteristics of Personal Maturity and Personality Adjustment are both evaluated low on the scale. Both the tests and the interviews indicated a poorly adjusted personality and the analysis summary called attention to degrees of depression, tension, and other evidences of mental conflicts which were not good. The man was actually promoted two levels above his former manual job, despite the predictions of trouble from the maladjustment. He cracked up in January, 1954, and was hospitalized for psychiatric treatment. He is back on the job but the prospects are not good.

This situation could have been avoided, but disregard for such warnings is a part of the growing-up process incident to the adoption of a new selection program. Unfortunate as they are, such incidents confirm the validity of the evaluation procedures.

We have a great many cases which demonstrate the accuracy of predictions for success or failure on supervisory jobs. I will use only one "I told you so" case and one success story.

An "I Told You So" Case

This case of predicted failure involved an accomplished design engineer. His short profile shows intelligence, technical ability, and ambition and initiative as being good or excellent. But the two characteristics Social Adaptability, Personality Adjustment are shown as low. Supervisory Adaptability is also charted low.

His Department Head acknowledged some personality peculiarities but this was the first such appraisal in his department and, besides, he badly needed a man to be supervisor over a specialized design group. Whatever skepticism the Department Head had concerning the evaluation must have vanished shortly after he promoted the man. He was wholly inadequate in the administrative and supervisory portions of his position, and the situation reached the point where his subordinates practically refused to work for him. The same Department Head who promoted the man contrary to the predictions discharged him from service a few months later. The incident was unfortunate in every respect, including the loss of a man who, in the purely technical area, was thoroughly competent.

For Use on Skeptics

Here is another case we like to use on skeptics. The only reason this employee's profile is not a straight line down the excellent column is that his posture is not as good as it might be so the Personal Appearance score is down a notch. As one of our officers described this case, "We found a diamond in the coal bin."

The Power Plant Department was in the not uncommon scramble to line up the operating staff of a new generating station. The eventual plant will have a capacity of about 500,000 kw and the corresponding investment will make it a very costly tool.

Our objective was to find a top-flight man who could grow up with the plant and live with it as Engineer-in-Charge for a number of years. This time and age factor disqualified most of the top layers of supervision in other stations, so the processing of the entire power plant operating supervisory group was undertaken, beginning at the upper levels and working downward. Our standard was very high and the results of the processing were becoming increasingly disappointing as we approached the bottom of the ladder.

We have a somewhat disheveled old plant built in 1903 where the station heat rate would look very good if it were not for that last zero. The boiler room is not only at the bottom of the plant but its supervisors are at the bottom of the supervisory ladder. Fifth down on that ladder we found this man — only a high school graduate and one who had been very active in union affairs and a tough, but fair, member of bargaining committees.

He had everything for which we had been seeking but the prediction was startling—from the boiler room in one of the oldest plants to Engineer-in-Charge of the newest plant. Without delay he was transferred to the modern Port Washington Power Plant to act as second assistant for training. A few months later he was transferred to the Oak Creek project and, when the first unit went on the line in September, 1953, he was Engineer-in-Charge.

Beyond all doubt, such an unprecedented jump from the bottom of an old plant to the top of the newest required courageous decisions by the Department Head and Officer-in-Charge. Had there been any substantial doubt concerning the validity of the appraisal, such a move would not have been contemplated or approved.

The Assessment

The Wisconsin Electric Power Co. program for management selection and development is not, and never will be, perfect. However, during its brief but intensive life it has demonstrated, over and over again, substantially increased probability that individuals in management will be assigned duties and responsibilities for which they are best fitted. It has greatly minimized the possibility of well qualified people remaining unknown in blind alleys. It has substantially ruled out the danger of promotions or failures to promote based upon favoritism or prejudice. It has made it possible to predict, with considerable accuracy, the maximum management capacity of individuals. It has removed much of the guesswork from the process of intelligently planning ahead for competent succession of management throughout the organization.

Of particular interest is the fact that the management selection procedures are tailor-made for the utility industry which, as we know, has some peculiarities. From basic research to proof of validity, the plan was developed wholly within a typical, middle-size, operating utility. With few, if any alterations, it is adaptable to any utility, regardless of size or geographical location.

All down through its three-quarters of a century of service to humanity, whenever the electrical industry was

(Continued on page 324)

The Real "Give-Away"

Reprinted from *The Guaranty Survey*, published monthly by Guaranty Trust Company of New York, September 1956.

IT is during political campaigns that the cry of "give-away" reaches its greatest intensity. This is the cry raised by advocates of "public" power whenever it is proposed to allow private enterprise to develop a water-power site. The implication is that natural resources rightfully belonging to all the people are being "given away" to favored groups.

The persistent use of this slogan both indicates and tends to perpetuate the mental confusion surrounding the question of future power development, a question on which clear understanding and deliberate choice by the people are particularly needed. Unfortunately, clear understanding has been hindered not only by campaign slogans and by some party leaders' attempts to make the power issue a matter of party strategy and expediency, but also by the misleading way in which the financial results of the operations of governmental as against private power agencies are presented, while deliberate choice has been impeded by legislative and administrative rules that have "loaded the dice" against private enterprise.

Rates the Crucial Factor

What is actually "given away" when a power site is developed by a private company or group? The site itself is of no use to anyone until large sums of money have been spent for dams, generating plant and equipment, and transmission lines. These expensive installations, as well as the continuing cost of operating them, must be paid for, whether the work is done by a privately owned company or by a governmental agency. If the rates charged for the power are sufficient, and only sufficient, to meet the cost of operation and provide a fair and reasonable return on the invested capital, nothing is "given away." The users of the power pay, and the company receives, what the power is worth, neither more nor less.

There is a "give-away" only if the rates are too high or too low. If they are too high, the developer of the site, whether privately or governmentally owned, is enriched at the expense of the users of power. If the rates are too low, the "give-away" is in the opposite direction.

Under private operation, rates for the most part are fixed by State commissions elected or appointed by the people who use the electricity. There is no reason to believe that State commissions are less impartial or unbiased in setting fair rates than the Federal Government, and certainly it cannot be argued that these commissions discriminate against the very people they represent. Consequently there is no basis for the charge of "give-away."

The Real Cost of Power

The first essential to a clear understanding of the power question is a firm grasp of the basic truth that the cost of power to the people as a whole is the cost of producing it, not the rates charged for it. Herein lies the chief source of the confusion that exists regarding the comparative costs of "private" and "public" power. Private companies and the investors in their securities pay heavy taxes, and their rates must include reimbursement for these taxes. Governmental agencies are largely exempt from taxation, as are the investors in their securities. The resulting savings in direct tax costs and in financing costs enable these agencies to charge much lower rates than private companies and still show no deficit on their books.

This creates the illusion that "public" power is cheaper than "private" power. The truth is that it is cheaper to the consumer but not to the people as a whole. It is cheaper to the consumer only because he receives the benefit of tax exemptions and other forms of subsidy which are not granted to the consumer of privately produced power. Since government must have its revenue, the taxes not paid by consumers of "public" power must be paid by others, which means that these others are, in effect, subsidizing the "public" power consumers.

The Hoover Commission Task Force on Water Resources and Power analyzed the financial condition of the principal Federal power systems to determine how revenue compared with the requirements that would have had to be met under private operation. In computing these requirements, very liberal standards were used. For example, the allocations of initial capital costs made by the power agencies were accepted without question, although heavy subsidies are often introduced into power rates by allocating disproportionate shares of capital costs to flood control, navigation, treaty obligations, fish and wild-life preservation, etc. A 3 per cent interest rate was used for the cost of money, although this is very low in comparison with the 5½ to 7 per cent that must be earned by private utilities and is even below the 3¼ per cent paid by the Federal Government for its longest-term money. Tax requirements were computed on the basis of dollars per kilowatt of installed capacity of the installation which peripheral companies would have been most likely to make.

Measured by these modest requirements, the principal Federal power systems were found to have a total revenue deficiency of nearly $76 million for the year ended June 30, 1953, and a cumulative deficiency up to that date of nearly $332 million. In other words, the Hoover commission found that the Federal "yardstick" for power rates was too short by some 40 per cent; it was a 23-inch yardstick.

The result of this discrimination is a gravitation of industry and population into areas of low power rates, that is, areas served by "public" power. This widens the scope of the discrimination and at the same time inhibits the growth of other areas and aggravates the tax burden they must pay for the benefit of the favored regions. It tends further to create a perpetual power "shortage" in the subsidized areas and gives rise to a demand for ever greater expansion of the "public" power facilities. In this

way the growth of "public" power tends to snowball far beyond the original intent when the projects were set up.

The drift toward "public" power has been speeded by a number of legislative and administrative policies, especially since the Federal Government entered the power business on a large scale. For example, the Government has undertaken to "firm" its power supply by constructing steam plants to offset the fluctuations of water power. It has introduced the "captive" clause into power contracts, requiring customers to use Federal power exclusively. It has forced private companies to transmit, or "wheel," Federal power to governmental agencies by threatening to duplicate their facilities. It has encouraged the organization of local governmental bodies to enter the power business and has given financial aid to such agencies to duplicate existing equipment.

In short, the Government has not only gone into competition with its own citizens in the "private" power business. It has not only competed on an unequal basis by giving its power agencies financial advantages which it has denied to private companies. It has further intensified this unequal competition by deliberately encouraging the growth of local governmental power agencies at the expense of the privately owned utilities.

The Preference Clause

Most of the devices by which this discrimination has been practiced have been adopted under the authority of the so-called preference clause, a provision requiring preferential treatment to governmental agencies and certain others in the sale of Federally produced power. The preference clause appears, in one form or another, in almost all legislation dealing with Federal power projects. Its use dates back half a century to the Reclamation Act of 1906, but its practical meaning and force have undergone vast changes with the growth of Federal participation in the power business and the interpretation of the clause by administrative agencies.

In its original form, the preference clause merely authorized the Secretary of the Interior to lease surplus power from irrigation projects, "giving preference to municipal purposes." In 1913 the Acting Attorney General interpreted the clause as follows:

> "The duty to prefer municipal purposes in the making of leases is secondary and incidental. If, where a surplus of power became available, opportunities should occur to dispose of it for municipal uses, and the terms offered in return were at least as advantageous to the project as the terms offered in behalf of other uses, it would be the duty of the Secretary to make the lease for the municipal uses, but not so if, in his judgment, the contract would prove more profitable if made in the other way."

This limited type of preference continued under the Federal Water Power Act of 1920 and other Federal legislation until 1928, when the Boulder Canyon Project Act initiated a trend toward preference of a broader kind. This trend was fully confirmed under the Tennessee Valley Authority Act of 1933 and subsequent legislation. The Bonneville Act of 1937, for example, provided that there be available at all times up to January 1, 1941, for sale to public bodies and cooperatives not less than 50 per cent of the electric energy produced. After that date, in the event of conflicting or competing applications for an allocation of power between any public body or cooperative on the one hand and private agency on the other, the application of the public body or cooperative was to be granted. This preference was not to be denied to a public body that had not yet been able to accomplish its financing, but a reasonable time was to be allowed for the steps necessary to such financing. Any contract with a purchaser engaged in the business of selling electric energy to the general public could be canceled by the Administrator on five years' notice if in his judgment any part of the energy was likely to be needed by public bodies or cooperatives.

Recent Interpretation

Recent administration of the preference clause has been along the general lines laid down in a directive issued in 1946 by Secretary of the Interior Ickes, providing that hydroelectric generating facilities be designed and installed in all projects where feasible; that projects have their own steam stand-by and reserve facilities where necessary to independent operation on an economical and efficient basis; that facilities be designed and installed to provide the type of power and service required by public agencies and cooperatives; that transmission outlets to existing and potential wholesale markets be adequate to deliver power to every preferred customer within the region; that such outlets be owned and controlled by the Federal Government unless privately owned facilities were made available upon terms which assured full accomplishment of the "basic objects"; and that active assistance, from the beginning of the planning and authorization of a project, be given to the organization of public agencies and cooperatives for the distribution of power in each project area.

It would be difficult to formulate a program representing more aggressive encroachment by the Federal Government in the business field. This is indeed a far cry from the policy of flood control, navigation and irrigation, with power generation an incidental feature, which marked the Government's early ventures into the power business.

Under the preference clause, so interpreted, the Federal Government has become not only a producer and seller but an active promoter of "public" as against "private" power. As a result, more than 80 per cent of the salable power from Federal projects is now sold to preference customers, and expert opinion holds that eventually all Federally produced power will go to governmental and quasi-governmental customers and power distributors, unless the Federal Government undertakes further large-scale expansion of its producing facilities.

Growth of "Public" Power

In the twenty years from 1933 to 1953, "public" power increased from 6 to 20 per cent of the country's total output of electric energy, and Federally produced power alone rose from less than half of one per cent to 13 per cent, with a further rise to 16 per cent in prospect by 1960. This expansion has not taken place because of any real economy in the cost of producing "public" power. It has taken place because government has gone into competition with its own citizens, not only by undercutting the rates established by governmental regulatory agencies as fairly representing

(*Continued on page* 320)

EEI Resuscitation Awards

THE EEI Resuscitation Medal, Medal Miniatures or Certificates of Assistance have been presented to employees of three companies in recognition of their successful efforts in saving the lives of fellow workers. To these men has come "man's greatest privilege—the saving of life," and they were ready. Each case illustrates how preparedness, personal courage and decisive action were combined to avert what would otherwise have been a tragedy.

In addition to being a recognition of the individual recipient's heroic action, the presentation of each Resuscitation Award is also a poignant reminder of the value of company safety programs. Hours spent in learning and practicing life-saving procedures in company safety programs, are rewarded a thousand-fold in minutes.

Following are reviews of the cases for which Resuscitation Awards have been made since the BULLETIN last reviewed cases in March 1956.

HARRY MILTON JERAULD

The Cleveland Electric Illuminating Company

Storm damage to lines was being repaired on the Cleveland-Meadville Road near Windsor, Ohio, by a crew of employees of The Cleveland Electric Illuminating Co. At 10:15 p.m. on August 13, 1955, Lineman Grade I Clinton F. Pugh, Jr., was atop a pole installing jumpers to reenergize a repaired section.

While installing the last of the three jumpers, Pugh in some manner contacted the energized side of the 4800-volt primary conductor and screamed.

Lineman Grade II Frank Shuffle, who was working as groundman for Pugh, heard his scream and ran to the truck for his belt. Already wearing his hooks, Shuffle put the belt on as he ran back to the pole on which Pugh had been working then climbed to the victim, who was hanging head down in his body belt. Afraid that Pugh would slip out, Shuffle worked his way under the victim to get Pugh lying across his belt. Lineman Richard Kincaid also had climbed the pole and freed the victim, whom Shuffle continued to hold. They then attached a line to the victim and lowered him to the ground.

There, Lineman Grade II Harry Jerauld immediately began the administration of arm lift-back pressure artificial respiration. After approximately ten minutes, the victim began to breathe. Jerauld continued the respiration for about five minutes more, however.

Pugh was then removed to a hospital where he was treated for burns on the forehead, shoulder, elbow, upper arm, and knee. He was able to return to work in 17 days.

Their efficient action earned an EEI Medal for Harry Milton Jerauld and Certificates of Assistance for Frank Shuffle and Richard Kincaid. The awards and certificates were presented at the company's Safety Day meeting held at Cleveland's Manger Hotel on January 26, 1956. Presentation was made by Elmer L. Lindseth, president of the company. Accounts of the presentation appeared in the February 2, 1956, edition of the Ashtabula (Ohio) *Star-Beacon* and the February issue of *The Motor*, company publication.

HOMER M. MESCH
ELDON BISHOP
EARL T. JENNINGS
THOMAS A. PHILLIPS

Central Illinois Public Service Company

Line Foreman Homer M. Mesch's crew of Central Illinois Public Service Co. employees were working on the afternoon of July 6, 1955, to install 69,000-v air break switches on each side of a new conecting line for the Menard County REA Co-operative. The site at which they worked was approximately six miles east of Havana, Ill.

A temporary 12,500-v by-pass line had been built around the job. At about 3:45 p.m., Apprentice Lineman Curtis A. Luft was walking behind the line truck guiding a section of an

Harry M. Jerauld (second from left) shows the EEI Resuscitation Medal he received for helping to save the life of fellow lineman Clinton F. Pugh, Jr. (second from right) to Richard Kincaid and Frank Shuffle, both of whom received Certificates of Assistance for their part in the rescue.

air break switch which was suspended from the truck winch line. As the truck was driven under a three-phase 12,400-v circuit, the top of the winch line boom contacted a bare phase wire, causing Luft to receive an electric shock.

As Foreman Mesch ran to the accident scene, he signalled to Truck Driver Thomas A. Phillips to back the truck clear of the 12-kv line.

Mesch pulled Luft from under the truck and began to apply the Shafer prone pressure method of artificial respiration while other members of the crew rushed to the accident scene from the places where they had been working. Phillips was told to stay in the truck, which he did until Groundman William L. Fouts had checked the truck to make sure i was clear of contact. When Apprentice Lineman Eldon Bishop arrived at the spot, he assisted Mesch in the administration of back pressure-arm lift respiration. Later, Apprentice Lineman Earl T. Jennings and Phillips also participated in the administration of artificial respiration. After six to eight minutes of respiration, the victim began to show signs of breathing. As he came out of shock he struggled fiercely and it was necessary for Phillips, Fouts, and Bishop to hold his arms and feet while Jennings and Mesch continued the effort.

When a doctor and ambulance arrived at the scene. Luft was removed to a Canton hospital. Bishop and Jennings acompanied him in the ambulance. Luft suffered severe electrical burns of both feet and burns of the hands. He lost 14 weeks from work as a result of the accident.

In recognition of their mutual efforts in the resuscitation, EEI Medal Miniatures were awarded to Homer M. Mesch, Eldon Bishop, Earl T. Jennings, and Thomas A. Phillips. A Certificate of Assistance was authorized for William L. Fouts for his part in the resuscitation. Presentation of the awards and certificates was made at the Annual Safety Award Presentation Meeting held on February 15 at the Canton Group Office.

An account of the resuscitation and presentation appeared in the March, 1956, issue of *CIPSCO News*, company publication.

STANLEY M. SIMISTER
ALFRED SANTELL
ROBERT E. BOYLAN
JOSEPH T. BYRNES
EDWARD WINTERS

The Narragansett Electric Company

On the hot afternoon of July 6, 1955, in Tiverton, R. I., a group of employees of The Narragansett Electric Co. were working on the connection of a portable substation. A hi-line crew, a substation group, and three men from the Providence Engineering Department were working together.

After the portable substation was in place, four rubber-covered leads were unreeled. Three having identifying bands of varying colors were to be live phase conductors, and the fourth, unmarked, was to be the ground conductor. In making connections the ground lead was interchanged with one of the phase leads, causing the portable substation frame to become energized since two of the leads had been interchanged.

At the instant that the third lead touched its connection, Foreman Wilfred T. Barnes was attempting to raise the portable to a level position by cranking a lifting device. Barnes groaned and fell to the ground, unconscious and not breathing. Electrical Engineer S. M. Simister and First Class Electrician Alfred Santell removed the victim from between the substation and the fence to a position where Simister could begin the administration of Schafer Prone Method artificial respiration. Simister was relieved by Santell, who was followed in the respiration administration by Groundman Robert E. Boy-

(*Continued on page* 324)

Five men whose efforts saved the life of Wilfred T. Barnes are seated with him in the photo above, following the ceremony during which they were all presented with EEI Resuscitation Awards. They are (seated left to right) Joseph T. Byrnes, Alfred Santell, Robert E. Boylan, Barnes, Stanley M. Simister and Edward Winters. Looking on are Ralph E. Nock, Vice President and General Manager; Fred Harriman, Safety Manager for the New England Electric System; Jack Smith; Charles F. Moran and John W. Gronbeck.

EEI Award Competitions for 1956

Twenty-three Awards in Commercial Field

AWARDS in recognition of outstanding individual and group achievement in various industry activities will be presented by the Edison Electric Institute again this year. The awards are offered to encourage the continued search for better methods of rendering public service in the various facets of electric utility operation, as well as to honor those companies and individuals whose performance in the preceding year produced the greatest measure of success.

The awards have become the symbol of distinctive achievement and are diligently sought after by many companies each year. For all who enter the competition, the preparation of an entry affords an excellent opportunity for a careful appraisal of that particular project, which can be very helpful in the formulation of future plans. Too, the entry is a fine record of accomplishments within the specific area.

Twenty-three of the awards are in the commercial field and will be presented at the 23rd Annual EEI Sales Conference in Chicago, April 1-4, 1957. Presentation of the awards to winners of the Reddy Kilowatt Annual Report Awards and the Claude L. Matthews Valor Award will take place at the 25th Annual Convention of the Edison Electric Institute to be held in Chicago, June 3-6, 1957.

All awards are under the jurisdiction of the EEI Awards Committee, whose chairman is George W. Ousler, Vice President, Duquesne Light Co.

Simplified Entries

Rules for the competitions have been kept simple to invite wide participation. The Awards Committee has stressed that elaborate entries are not necessary, nor are they given any special consideration. Simple factual entries are desired.

Simplified entries keynote the 1956 competition. Following are the entry requirements:

1. A one-page typewritten synopsis at the beginning of entry covering points under point 2 below.

2. Devote a section of entry to each point listed below. Use title page before each section. Samples may be shown in advertising section.

A. *Background* — such pertinent information as: type and size of area served; number of customers in the market; brief comment on nature of territory as related to promotion; completion, if any.

B. *Nature and objective of promotion.*

C. *Participation* — by utility, sales allies, other industry, etc.

D. *Advertising, promotion, display, and publicity.*

E. *Results*—general and specific.

3. Entries should contain only those activities performed during the year ending December 31, 1955. Entries must not exceed 15 x 18 inches. All entries become the property of the Edison Electric Institute.

4. Unnecessary hand lettering, art work, elaborate arrangements, heavy expensive covers, are prohibited.

Suggested Points

The following points are suggested for entries but not required:

1. Name of contest, classification, and name of submitting company (and individual) should appear on the cover of entry.

2. Number pages of entry.

3. Do not use original letters, etc., one to a page; use photostat reductions to save space.

4. Try for human interest, really descriptive photographs.

5. Limit number of pictures at dinners, meetings, etc., but get pictures that emphasize objectives of promotion, incidents, unusual features, etc., at such meetings.

Additional information about the awards, described briefly in the following paragraphs, may be obtained upon request to the Edison Electric Institute, 420 Lexington Ave., New York 17, N. Y.

Thomas W. Martin Award

The Thomas W. Martin Rural Electrification Award is presented to that electric operating company in the United States or Canada making the greatest contribution to rural electrification and agricultural advancement in the area served. It offers some measure of recognition to the ingenuity required in planning and conducting activities designed to assist the farmer in obtaining the greatest possible benefits from the use of electricity, and to cooperative endeavors with other agencies in conducting agricultural development programs.

Consisting of a handsome bronze plaque upon which the winning company's name is engraved, the award was established in 1932 by Thomas W. Martin, Chairman of the Board of the Alabama Power Co., and a pioneer in rural electrification.

Entries for this award, which will be presented at the 23rd Annual Sales Conference, must be postmarked or received at the Edison Electric Institute not later than midnight, February 15, 1957.

George A. Hughes Awards

Presented for outstanding achievement in the field of electric appliance sales and promotion directly and through dealers, the George A. Hughes Awards are aimed particularly at the development of the electric cooking and water heating loads. There are awards for promotional activities in the following classes: range, water heater and commercial

cooking. Each class has two divisions — Division A for companies with 250,000 or more total meters, and Division B for companies having fewer than 250,000 total meters.

The awards are offered to individuals of operating electric light and power companies in the United States and its possessions and Canada. Hotpoint Co. sponsors the awards in honor of the late George A. Hughes, a pioneer in the electric range field, and from 1918 to 1943 head of the Edison General Electric Appliance Co., now the Hotpoint Co.

In each of the six categories, the award includes a trophy to the company and $200 to the individual or group. The awards will be presented to the winners at the 23rd Annual Sales Conference. All entries must be postmarked or received at the Edison Electric Institute no later than midnight, February 1, 1957.

Laura McCall Awards

The Laura McCall Awards are offered to give public acknowledgement to outstanding home service work. They are sponsored by *McCall's* Magazine in memory of its founder, Laura McCall, and are presented either to an individual or to an entire department of an operating electric light and power company.

There are three divisions in this competition, with a total of five awards each consisting of an engraved bronze plaque and $200. The Division A award, which is for either overall home service operations or for a specific activity, will be presented to the head of a Home Service Department who has ten or more assistants or whose company has 250,000 or more total electric meters. For the small home service operations, the Division B award is offered to the head of the Home Service Department who has not more than nine assistants and whose company has less than 250,000 total electric meters. There are three equal awards for individual achievement available to three members of Home Service Departments of any size in Division C.

The Laura McCall Awards will be presented to the winners at the 23rd Annual Sales Conference. Midnight, February 1, 1957, is the deadline by which all entries must either be postmarked or received at the Edison Electric Institute.

The Better Light Better Sight Bureau Awards

An outgrowth of the Planned Lighting Awards which were discontinued in 1955, the Better Light Better Sight Awards are offered to operating electric light and power companies in the United States, its possessions and Canada. The awards are given in recognition of noteworthy educational activities which foster better understanding of the relationship of light and sight.

Two awards are made, one—Division A—for companies having 250,000 or more total meters, and the other — Division B — for companies having less than 250,000 total meters. In each case they are engraved bronze plaques upon which the name of the winning company is inscribed.

Winners will receive the awards at the 23rd Annual Sales Conference. All entries for the Better Light Better Sight Awards must be postmarked or received at the Edison Electric Institute not later than midnight, February 15, 1957.

The Lighting Promotion Awards

The Lighting Promotion Awards are also an outgrowth of the former Planned Lighting Awards. Operating electric light and power companies are eligible for these awards which are presented in recognition of outstanding lighting promotional activities in the residential and commercial-industrial markets.

There are two awards, one each for residential and commercial-industrial lighting promotional activity. Entries in the latter category may cover both the commercial and industrial markets, or either one of them. Both awards consist of an engraved bronze plaque upon which the winning company's name is inscribed.

The General Electric Co., Sylvania Electric Products Inc., and the Westinghouse Electric Corp. sponsor these Lighting Promotion Awards. They will be presented to the winners at the 23rd Annual Sales Conference. All entries must be postmarked or received at the Edison Electric Institute not later than midnight, February 15, 1957.

Frank Watts Awards

Farm Journal, Inc., is the donor of three equal awards named in honor of Frank Watts, a well known proponent of farm electrification. The Frank Watts Awards are offered to operating electric light and power companies of the United States to recognize their promotional and sales efforts in rural areas, and to encourage interest in the use of electrically-operated farm equipment as a means of improving agricultura productive efficiency.

An engraved bronze plaque and $200 will be presented to each of the three winners at the 23rd Annual Sales Conference. Only entries postmarked or received at the Edison Electric Institute not later than midnight, February 15, 1957 will be eligible.

George Westinghouse Awards

Named in honor of George Westinghouse, one of the earliest promoters and one of the founders of the electric industry, the George Westinghouse Awards are sponsored by Westinghouse Electric Corp. They are offered to provide recognition for, and stimulate outstanding performances in, the promotion of automatic electric laundry equipment.

A trophy and $300 to the winning individual or group constitutes the top award, while a plaque and $150 is given to the winner of the second award. All operating electric light and power companies in the United States, its possessions and Canada may compete for these awards. Entries must be postmarked or received at the Edison Electric Institute not later than midnight, February 1, 1957. Winners will receive the awards at the 23rd Annual Sales Conference.

More Power to America Award

The General Electric Co. sponsors the More Power to America Award. The award is offered to increase the productivity of American industry by encouraging creative, broad-scale industrial electrification activity among America's operating electric light and power companies; and further, to bring recognition to the companies and individuals making the greatest advancement in this field.

There are two categories, Division A which is restricted to companies

with 250,000 or more total meters, and Division B which is restricted to companies with fewer than 250,000 total meters.

Winners in both categories are awarded the sum of $250 and an engraved plaque. Entries must be postmarked or received at the Edison Electric Institute not later than midnight, February 1, 1957. Awards will be presented to the winners at the 23rd Annual Sales Conference.

Claude L. Matthews Valor Award

The Claude L. Matthews Valor Award honors acts of devotion to duty wherein extraordinary courage has been exercised in efforts to maintain important electric service or to restore service in the shortest possible time. It is presented to operating electric light and power company employees in the United States and its possessions, and Canada.

The award was established by Claude L. Matthews, president of the former W. N. Matthews Corp., and now a retired vice president of the A. B. Chance Co., donor of the award.

Recommendations for this award must be made by the chief executive (or acting representative) of the electric operating company. The deed of valor for which the recommendation is being made must have been performed during the year ending December 31, 1956. There may be more than one Valor Award presented in any given year. Recommendations must be forwarded to the Secretary, Awards Committee, Edison Electric Institute, not later than February 1, 1957.

The winner (or winners) of the Valor Award will receive a bronze medal, a citation and $150 at the 25th Annual Convention of the Edison Electric Institute.

Reddy Kilowatt Annual Report Awards

The Reddy Kilowatt Annual Report Awards are offered to encourage operating electric light and power companies to simplify, dramatize and humanize their annual reports. The purpose is to create greater stockholder interest and understanding of the company's past year's operations, and to create better public relations among the stockholders by enabling them better to understand the problems and accomplishments of the company.

The Grand Award consists of a certificate and an engraved bronze plaque upon which the name of the winning company is inscribed. In addition to this award, certificates will be presented to companies in each of four meter classifications, and honorable mention certificates will be given for several reports in each class. Special certificates will be awarded to the one company in each classification which shows the greatest improvement in its annual report over the previous year.

Reddy Kilowatt Inc. is the sponsor of these awards, and entries must be mailed directly to them at 50 Church Street, New York 7, N. Y., not later than May 9, 1957. Presentation of these awards will be made at the 25th Annual Convention of the Edison Electric Institute.

Technical Appraisal Task Force on Nuclear Power Organized by EEI

ORGANIZATION of the Technical Appraisal Task Force on Nuclear Power was announced by Donald S. Kennedy, President of the Edison Electric Institute, following a meeting of the Institute's Board of Directors on September 20, 1956.

James F. Fairman, Engineering Vice President of Consolidated Edison Co. of New York, Inc., has been named Chairman of the Task Force, and its electric utility company members include James B. Black, Board Chairman of Pacific Gas & Electric Co.; Walker L. Cisler, President of The Detroit Edison Co.; Herbert J. Scholz, President of Southern Services, Inc.; Philip Sporn, President of American Gas & Electric Co.; and William Webster, Executive Vice President of the New England Electric System.

With acceleration of nuclear power development in the United States as its primary objective, formation of the Task Force had been unanimously approved by the Institute's Board of Directors at the annual meeting of the Institute in June.

Mr. Kennedy said the principal functions of the Task Force will be:

1. To keep informed of the status of research and development work, in the United States and elsewhere, of importance to the achievement of competitive nuclear power.
2. To study and report on all reactor programs and projects.
3. To study and appraise the technical and economic factors and the results to be achieved by the design and construction at different times of prototype or full scale nuclear power plants.
4. To act as a liaison agency with the members of any nuclear reactor evaluation group that may be set up on a national level.

Independent nuclear scientists and engineers will be named to the Task Force in the near future and it is expected that consultants, engineering firms, or research organizations will be engaged to assist the Task Force in its work.

Through the Institute, the findings of the Task Force will be made available to all member companies and are expected to be of great value in speeding the development of nuclear power.

All members of the Task Force have been active in the atomic field and are associated with various electric companies or groups of companies which either have nuclear-fueled electric stations under construction or in advanced stages of planning.

The EEI Board meeting was preceded by an all day President's Conference on Nuclear Power, which was the largest gathering of electric utility company top executives in the history of the Institute. Leading executives of some of the principal electric utility companies already engaged in research and development of nuclear power addressed the Conference. These included Messrs. Cisler and Sporn who are members of the Task Force, and Mr. Fairman, Chairman of the Task Force. Other speakers were Jack K. Busby, Vice President and General Counsel of Pennslyvania Power & Light Co.; Elmer L. Lindseth, President of The Cleveland Electric Illuminating Co.; R. D. Maxson, Senior Vice President of Commonwealth Edison Co. of Chicago; and Philip A. Fleger, Chairman of the Board of Duquesne Light Co. Edgar H. Dixon, President of Middle South Utilities, Inc., and Chairman of the EEI Committee on Atomic Power, presided at the Conference which was opened by Mr. Kennedy.

21 EEI Safety Merit Awards Presented To 14 Companies in July & August

TWENTY-ONE EEI Safety Merit Awards were presented to 14 companies during the period from July 1 to August 31, 1956. These brought the number of companies having earned awards during the first eight months of this year to a total of 33, the same number of companies that received awards during the whole of 1955. Certainly this reflects an increasing sense of safety-consciousness on the part of thousands of electric utility industry employees, as well as a diligent effort to achieve an enviable safety record for their respective companies and for the industry at large.

Five Entire Company Awards

The awards are presented in recognition of 1,000,000 or more accident-free man-hours. Of the 21 certificates awarded during this two-month period, five were entire company awards.

The award to Alabama Power Co.'s Birmingham Division brings to a total of nine the 2,000,000 man-hour certificates presently held by departments or divisions of this company.

Baltimore Gas and Electric Co.'s Electric Distribution Department achieved a 2,000,000 man-hour certificate, thus contributing substantially to the splendid record of this company. The company's Power Transmission Stations personnel still hold the industry record of 7,000,000 consecutive hours without a disabling injury accident.

With the two received during this period, The Cleveland Electric Illuminating Co. now has a total of twelve awards presented so far this year.

Several Awards Represent Years of Accident-Free Operation

The 1,000,000 man-hour certificate to the Edge Moor Power Station of Delaware Power & Light Co. represents four years of operation without accident. Employees of Iowa Power and Light Co.'s Council Bluffs District put in continuous time from November 1949 to August 1956, without a disabling injury, to earn the certificate presented during this reporting period.

The 2,000,000 man-hour certificate to New Orleans Public Service Inc.'s General Sales Department is the second to be awarded this company, whose Engineering Department's attainment of two million man-hours was noted in the last summary article in the July BULLETIN. This General Sales Department was formerly the Industrial Engineering & Utilization Department, and members worked from June 1949 to July 1956, a total of seven years without accident, to reach this two million mark.

Northern States Power Co. added a two million man-hour certificate during this reporting period.

The awards made between July 1 and August 31, 1956 are as follows:

Alabama Power Co.
- Birmingham Division 2,000,380
- Electric Operations 1,232,266

Appalachian Electric Power Co.
- Lynchburg District 1,000,394
- Roanoke District 1,001,743

Baltimore Gas and Electric Co.
- Electric Distribution Department 2,018,513
- Electric Operations 1,079,679

The Cleveland Electric Illuminating Company
- Distribution Group 2,014,100
- Entire Company 1,000,000

Consumers Power Co.
- Bay City Division 1,034,152
- Flint Division 1,228,721

Delaware Power & Light Co.
- Edge Moor Power Station . 1,000,000

Indianapolis Power & Light Co.
- Entire Company 1,042,191
- Power Production Department 1,310,386

Iowa Power & Light Co.
- Council Bluffs District 1,001,312

Kentucky Utilities Co.
- Entire Company 1,006,463

New Orleans Public Service Inc.
- General Sales Department . 2,012,191

Northern States Power Co. (Minn.)
- Entire Company 2,173,704

Northern States Power Co. (Wis.)
- Entire Company 1,157,575

Oklahoma Gas and Electric Co.
- Entire Company 1,000,000
- Western Division 1,000,000

Philadelphia Electric Co.
- Engineering Department . 1,766,000

IBEW Endorsed National Electrical We

NATIONAL Electrical Week has been endorsed by The International Brotherhood of Electrical Workers as "an outstanding program for the industry," and IBEW has become a contributing sponsor to the 1957 observance, Merrill E. Skinner, chairman of the National Electrical Week Committee, announced recently.

The IBEW, representing more than 650,000 members in all branches of electrical work, is the ninth major group in the electrical industry to give full support to the Week which is scheduled for February 10-16, 1957.

"We believe that this program shows excellent promise of generating considerable nationwide public impact for the benefit of all segments of the electrical industry," Gordon M. Freeman, International President of IBEW, said in announcing the action. "We are glad to join with the eight trade associations of the industry in the sponsorship and support of this annual observance," he added.

The primary objective of National Electrical Week, which is held during the week of Thomas A. Edison's birthday, is to develop an information program on both national and community levels that will enhance public appreciation of electricity and the contributions of the electrical industry to the nation's progress and economy. It has the support of representatives of the entire industry—power suppliers, manufacturers, inspectors, wiremen, distributors, dealers, contractors, and electrical leagues.

The Real "Give-Away"

(*Continued from page* 314)

the cost of producing power (including a fair share of the aggregate tax burden), but also by actively discriminating against private citizens in the marketing of power generated Federally owned and operated installations.

This is the real "give-away." It occurs not under private enterprise but under "public" power development as it has been and is practiced. What is "given away" is not natural resources but taxpayers' money. And the favored groups are not private power companies but consumers of "public" power.

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Personals

Robert E. Ritchie has been named Chairman of the Board of Arkansas Power & Light Co. succeeding **C. Hamilton Moses** who has retired to return to the practice of law. Mr. Ritchie will continue to serve also as President.

Mr. Ritchie attended Polytechnic College in Fort Worth, Texas. Prior to joining AP&L in 1923, he had worked for several years for a number of railroads. In 1926 he became assistant to the general manager, and the following year became assistant to the president. Retaining that title, he was given additional responsibilities as a division manager in 1935. In 1940 he was elected a vice president, and in 1952 succeeded Mr. Moses as president.

A graduate of Tulane University and Arkansas Law School, Mr. Moses was admitted to the bar in 1913. During the following six years he served as secretary to three governors and was also an assistant attorney general from 1915 to 1917. His long association with AP&L as general counsel began in 1919. He became president of AP&L in 1941, and was elected chairman of the board in 1952.

Carl W. Appleford has been appointed Chief Civil Engineer for the Pacific Gas and Electric Co. He succeeds **Henry V. Lutge** who retired. Following service in World War I, Mr. Appleford received his degree at the University of California in 1920. Later that year he joined PG&E's Civil Engineering Department, and has since participated in scores of projects including transmission, steam generation, substation and hydroelectric developments. He is a registered structural and civil engineer, a member of the honorary engineering fraternity, Tau Beta Pi, and of ASCE, the Engineers Club, Electric Club of San Francisco, and the Pacific Coast Electrical Association.

Several changes have been made in the executive staff of Kansas Gas and Electric Co. in a reorganization following the retirement of **Frank Barr,** Vice President, whose KG&E service spanned more than four decades. Principal change is the assumption of Personnel Department responsibilities by **Fred M. Kimball,** Vice President, who will also continue in charge of sales. In the departments headed by Mr. Kimball, **Glen L. Montague** has been named director of Personnel Administration, and **K. M. LaRue** has been appointed General Sales Manager.

Mr. Montague, a 15-year veteran of KG&E, joined the company following graduation from the University of Wisconsin. He was formerly director of industrial relations, and was primarily responsible for the development of KG&E's supervisory conference program and other employee group training programs.

Mr. LaRue attended the University of Kansas and San Jose State College. He joined KG&E earlier this year following eleven years of sales and promotion work with the Idaho Power Company and the Columbus and Southern Ohio Electric Co. Mr. LaRue was residential-rural sales manager prior to his new appointment.

Also sharing in the duties relinquished by Mr. Barr are **J. A. Elgaard,** Assistant to the President, who has assumed union contract negotiations, and **S. J. Sickel,** Vice President-Operations, who now has responsibility for the company's safety and accident prevention program.

Philip L. Metzger has been named personnel director of Kansas City Power & Light Co., succeeding **R. L. King,** who has resigned. A native of Chicago, Mr. Metzger graduated from the University of Chicago with a Bachelor's degree in 1938 and a Master's in 1939, after which he entered the teaching profession. He entered the Air Force in 1941, and was discharged in 1946 with the rank of Major. He joined KCP&L in January 1951 as supervisor of employment, and in May 1953 became supervisor of labor relations and employment.

G. Raymond Parry has been elected Vice President in charge of operations of Metropolitan Edison Co., a subsidiary of General Public Utilities Corp. A graduate of Lafayette College with a degree in electrical engineering, Mr. Parry's career in the utility industry began when he joined ME's engineering department in 1926. Subsequently serving in various departments of the company, he was appointed manager of the power sales department in 1943. Three years later he was elected vice president in charge of ME's Eastern Division, and in 1951 was placed in charge of the larger Western Division. In his new position Mr. Parry succeeds **William H. McElwain,** who resigned to become vice president and a director of Jersey Central Power & Light Co. and of New Jersey Power & Light Co.

The appointment of **Arthur M. Guy** as chief mechanical engineer for the Southern Indiana Gas & Electric Co. has been announced. Mr. Guy was previously with the former Commonwealth & Southern Corp.'s service company, and was also associated with the Pennsylvania Power Co. In his new post he will be responsible for staffing the new Alcoa power plant, which will be operated by SIGECO, and the training of employees for the plant.

At Maine Public Service Co., former president **Lawrence H. Alline** has been elected Chairman of the Board, **Samuel W. Collins** becomes President of the company, and **C. Hazen Stetson** has been named Executive Vice President, a new position.

Mr. Alline is an electrical engineering graduate of Purdue University. He was transformer sales engineer and sales manager for Packard Electric Co. from 1915 to 1926, with the exception of two years' service as an officer of the U. S. Army Corps of Engineers during World War I. In 1926 he was appointed general manager of Gould Electric Co., and served in this capacity during the period of mergers of other companies with Gould to form Maine Public Service Co. In 1935 he was elected president.

A graduate of the University of Maine in 1919, Mr. Collins has been active in the lumber, banking and construction fields in Maine. He has

also served six terms in the Maine legislature, including four years as a state senator. Mr. Collins became a director of MPS in 1947.

Mr. Stetson began his utility career with the Haverhill (Mass.) Gas & Light Co. in 1923. He served as chief accountant from 1930 to 1937, at which time he became chief clerk of MPS. From 1942 to 1946 he was office manager and chief accountant for Central Indiana Gas Co. He returned to MPS and became assistant treasurer, and served as secretary and clerk from 1947 to 1951. He was named treasurer in 1948 and vice president in 1951.

Niagara Mohawk Power Corp. has announced the election of **J. Leo Welch** as Vice President in charge of operations, and the appointment of **Willard C. Percy** as system rates analyst.

Mr. Welch has spent his entire career with Niagara Mohawk and predecessor companies, having started with the organization 45 years ago. In 1941, Mr. Welch was placed in charge of gas and electric operations for a division of the company. Three years later he became general superintendent of electric operations for Central New York Power Corp. and, in 1952, after the formation of Niagara Mohawk, he was named general superintendent of gas and electric operations for the company's Central Division, a post he has held since that time.

Mr. Welch is president and a director of the St. Lawrence Power Co. Ltd., and vice president and a director of the Beebe Island Power Co. He holds membership in AIEE, the Syracuse Technology Club and the Chamber of Commerce.

Mr. Percy is a graduate of Allegheny College where he received a Bachelor of Science degree in mathematics. He was a teacher for two years prior to joining a Niagara Mohawk predecessor company as a rural line representative in 1930. He later was office manager in one of the company's districts, and in 1940 was transferred to the budget department. Mr. Percy became a rate analyst in 1947, and rate engineer in 1951.

Philadelphia Electric Co. has announced the appointment of **John M. Warner** as purchasing agent. Mr. Warner joined the utility as an engineering assistant in 1937, following his graduation from Yale University. He advanced through several positions to superintendent of overhead lines in Philadelphia, the position he occupied at the time of this promotion. Mr. Warner is a member of the Engineers Club of Philadelphia, the Electrical Association, and the Yale Engineering Association.

In personnel changes at The Detroit Edison Co., **Howard R. Stevenson** has been appointed manager of sales, **George L. Lahodny** has been named assistant manager of sales, and **Fred A. Compton** has retired.

Mr. Stevenson joined Detroit Edison in 1928, soon after receiving a Master's degree in electrical engineering from the University of Michigan. He has held several supervisory posts including assistant superintendent of the customer service division, manager of a gas division, and assistant commercial manager in Detroit. He was named assistant manager of sales in 1952, and served as assistant manager of operations from 1954 until August of this year when he returned to the sales department as assistant manager.

Mr. Lahodny attended Western Reserve University and later studied business administration at Cornell University and the University of Detroit. He joined Detroit Edison as a sales department clerk in 1940. Entering military service in 1942 he served as a Captain in the Army Air Corps. He returned to Detroit Edison in 1945 as an instructor in the sales training school, and later held posts as staff assistant, assistant to the vice president, and supervisor of market research and budget analysis. He was appointed director of the sales staff in 1955.

Fred A. Compton retired as Vice President on September 1, after more than 42 years' service with Detroit Edison. He graduated from the University of Michigan with a degree in architecture in 1914, and joined the utility that year as an engineer in the construction department. After service as an officer in the 40th Infantry Regiment in World War I, he returned to Detroit Edison. He was assigned duties in the purchasing department in 1923, and became purchasing agent in 1940. Mr. Compton served as a consultant for the War Production Board during World War II. He was named sales manager, and in 1949 was appointed vice president in charge of sales.

Resuscitation Awards

(*Continued from page* 316)

lan, First Class Lineman Joseph T. Byrnes, and First Class Lineman Edward Winters.

The men administered artificial respiration for approximately 15 minutes, although the victim first showed signs of breathing after about 5 minutes of artificial respiration. A radio call for aid had been made immediately following the accident, and when an ambulance arrived at the scene, Barnes was removed to a hospital where he was treated for multiple second and third degree burns. He lost 96 days from work as a result of the accident.

For their joint effort, EEI Medal Miniatures were awarded to Stanley M. Simister, Alfred Santell, Robert E. Boylan, Joseph T. Byrnes, and Edward Winters. The awards were formally presented to the men by System Safety Manager Fred Harriman at a dinner in Providence on May 24, 1956. At the meeting, Narragansett Vice President and General Manager Ralph E. Nock lauded the men for their action.

Selecting Future Management

(*Continued from page* 312)

confronted by problems — no matter how complex — its people have gone to work, increased their know-how, and devised better equipment, better materials, and better ways of doing things.

The venture in the use of modern know-how and scientific methods in the area of management appraisal and selection was the outgrowth of the same problem-solving spirit of the industry. It was an attempt to bring the application of the more practical knowledge of the social sciences "into phase" with progress in the physical sciences, so that each can gain something from the other for the benefit of the industry and the people it serves.

EDISON ELECTRIC INSTITUTE OFFICERS AND COMMITTEES

OFFICERS

D. S. KENNEDY, *President*.....Oklahoma Gas and Electric Co., Oklahoma City, Okla.
J. W. MCAFEE, *Vice President*.....Union Electric Co., St. Louis, Mo.
EDWIN VENNARD, *Vice President and Managing Director*.....420 Lexington Ave., New York, N. Y.
H. S. SUTTON, *Treasurer*.....Consolidated Edison Co. of New York, Inc., New York, N. Y.
A. B. MORGAN, *Secretary and Assistant Managing Director*....420 Lexington Ave., New York, N. Y.

BOARD OF DIRECTORS

(Terms expiring 1957)

R. P. BRIGGS.....Consumers Power Co., Jackson, Mich.
W. J. CLAPP.....Florida Power Corp., St. Petersburg, Fla.
J. E. CORETTE.....The Montana Power Co., Butte, Mont.
C. P. CRANE.....Baltimore Gas and Electric Co., Baltimore, Md.
A. S. CUMMINS.....The California Oregon Power Co., Medford, Ore.
THOMAS G. DIGNAN.....Boston Edison Co., Boston, Mass.
E. W. DOEBLER.....Long Island Lighting Co., Mineola, N. Y.
JOHN W. EVERS.....Commonwealth Edison Co., Chicago, Ill.
C. E. IDE.....The Toledo Edison Co., Toledo, Ohio
S. R. KNAPP.....The Connecticut Light & Power Co., Berlin, Conn.
C. B. MCMANUS.....The Southern Co. Inc., Atlanta, Ga.
R. S. NELSON.....Gulf States Utilities Co., Beaumont, Texas
W. A. PARISH.....Houston Lighting & Power Co., Houston, Texas
HAROLD QUINTON.....Southern California Edison Co., Los Angeles, Calif.
L. V. SUTTON.....Carolina Power & Light Co., Raleigh, N. C.

(Terms expiring 1958)

J. L. BATES.....Central Power and Light Co., Corpus Christi, Texas
A. M. BEEBEE.....Rochester Gas and Electric Corp., Rochester, N. Y.
F. D. CAMPBELL.....Cambridge Electric Light Co., Cambridge, Mass.
C. B. DELAFIELD.....Consolidated Edison Co. of New York, Inc., New York, N. Y.
R. H. FITE.....Florida Power & Light Co., Miami, Fla.
R. H. GERDES.....Pacific Gas and Electric Co., San Francisco, Calif.
N. B. GUSSETT.....Iowa Power and Light Co., Des Moines, Iowa
E. L. LINDSETH.....The Cleveland Electric Illuminating Co., Cleveland, Ohio
D. C. LUCE.....Public Service Electric and Gas Co., Newark, N. J.
M. S. LUTHRINGER.....Central Illinois Public Service Co., Springfield, Ill.
C. E. OAKES.....Pennsylvania Power & Light Co., Allentown, Pa.
H. T. PRITCHARD.....Indianapolis Power & Light Co., Indianapolis, Ind.
K. M. ROBINSON.....The Washington Water Power Co., Spokane, Wash.
L. M. SMITH.....Alabama Power Co., Birmingham, Ala..
HAROLD TURNER.....American Gas and Electric Service Corp., New York, N. Y.

(Terms expiring 1959)

H. J. CADWELL.....Western Massachusetts Electric Co., Greenfield, Mass.
STUART COOPER.....Delaware Power & Light Co., Wilmington, Del.
CARL J. FORSBERG.....Wisconsin Power and Light Co., Madison, Wis.
ALLEN S. KING.....Northern States Power Co., Minneapolis, Minn.
C. E. KOHLHEPP.....Jersey Central Power & Light Co., Asbury Park, N. J.
C. R. LANDRIGAN.....The Detroit Edison Co., Detroit, Mich.
J. E. LOISEAU.....Public Service Co. of Colorado, Denver, Colo.
EARLE J. MACHOLD.....Niagara Mohawk Power Corp., Syracuse, N. Y.
D. C. MCKEE.....The Empire District Electric Co., Joplin, Mo.
P. H. POWERS.....West Penn Power Co., Greensburg, Pa.
R. G. RINCLIFFE.....Philadelphia Electric Co., Philadelphia, Pa.
R. E. RITCHIE.....Arkansas Power & Light Co., Little Rock, Ark.
W. H. SAMMIS.....Ohio Edison Co., Akron, Ohio
J. R. WELSH.....Southwestern Gas and Electric Co., Shreveport, La.
ERWIN H. WILL.....Virginia Electric and Power Co., Richmond, Va.

Executive Committee

C. B. Delafield, T. G. Dignan, A. S. King, E. L. Lindseth, C. E. Oakes, Harold Quinton, R. G. Rincliffe, W. H. Sammis, L. V. Sutton

EDISON ELECTRIC INSTITUTE OFFICERS AND COMMITTEES

ADVISORY COMMITTEE 1956-1957

D. C. Barnes.....Virginia Electric and Power Co.
A. D. Barney.....The Hartford Electric Light Co.
W. C. Beckjord.....The Cincinnati Gas & Electric Co.
J. B. Black.....Pacific Gas and Electric Co.
Harllee Branch, Jr. .....Georgia Power Co.
W. L. Cisler.....The Detroit Edison Co.
T. W. Delzell.....Portland General Electric Co.
Edgar H. Dixon.....Middle South Utilities, Inc.
Philip A. Fleger.....Duquesne Light Co.
George M. Gadsby.....Utah Power & Light Co.
Willis Gale.....Commonwealth Edison Co.
J. E. Loiseau.....Public Service Co. of Colorado
George L. MacGregor.....Texas Utilities Co.
J. W. McAfee.....Union Electric Co.
Lyle McDonald....Public Service Electric and Gas Co.
Paul B. McKee.....Pacific Power & Light Co.
I. L. Moore.....New England Electric System
W. C. Mullendore.....Southern California Edison Co.
Grover C. Neff.....Wisconsin Power and Light Co.
J. S. Osborne.....Central & South West Corp.
H. R. Searing.....Consolidated Edison Co. of New York, Inc.
McGregor Smith.....Florida Power & Light Co.
Philip Sporn.....American Gas and Electric Co.
Frank M. Tait.....The Dayton Power and Light Co.
J. B. Thomas.....Texas Electric Service Co.
E. S. Thompson.....The West Penn Electric Co. (Inc.)
G. W. Van Derzee.....Wisconsin Electric Power Co.
E. A. Yates.....The Southern Co.

CHAIRMEN OF EDISON ELECTRIC INSTITUTE COMMITTEES (1956-1957)

ACCOUNTING

Accounting Division Executive, R. G. Schneider.....Virginia Electric and Power Co., Richmond, Va.
Coordinator of Customer Activities Group, B. J. McMillen.....The Cincinnati Gas & Electric Co., Cincinnati, Ohio
Customer Accounting, A. B. Wilson.....Georgia Power Co., Atlanta, Ga.
Customer Collections, W. E. Travis.....The Cleveland Electric Illuminating Co., Cleveland, Ohio
Customer Relations, J. W. Kehoe.....Commonwealth Edison Co., Chicago, Ill.
Coordinator of General Activities Group, A. P. Thompson.....Iowa Power and Light Co., Des Moines, Iowa
Depreciation Accounting, P. K. Read.....New York State Electric & Gas Corp., Ithaca, N. Y.
General Accounting, A. T. Emmons.....West Penn Power Co., Greensburg, Pa.
Internal Auditing, R. E. Tate.....Kansas Gas and Electric Co., Wichita, Kans.
Plant Accounting and Property Records, A. C. Herron.....Florida Power Corp., St. Petersburg, Fla.
Taxation Accounting, R. J. Van Ess.....Consumers Power Co., Jackson, Mich.
Coordinator of Special Activities Group, J. D. Elliott.....The Detroit Edison Co., Detroit, Mich.
Accounting Developments Service, A. H. Kern.....Alabama Power Co., Birmingham, Ala.
Accounting Employee Relations, J. F. McCahon.....Philadelphia Electric Co., Philadelphia, Pa.
Application of Accounting Principles, R. R. Fortune.....Pennsylvania Power & Light Co., Allentown, Pa.
Electronic Accounting Machine Development, Russell Britt.....Wisconsin Electric Power Co., Milwaukee, Wis.
Uniform System of Accounts, P. R. Lawson.....Pennsylvania Electric Co., Johnstown, Pa.

COMMERCIAL

Commercial Division Executive, T. O. McQuiston.....Metropolitan Edison Co., Reading, Pa.
Commercial Sales Group, R. I. Bull.....Ohio Power Co., Canton, Ohio
Farm Group, M. O. Whithed.....Atlantic City Electric Co., Atlantic City, N. J.
Industrial Power & Heating Group, F. E. Wiatt.....The Cincinnati Gas & Electric Co., Cincinnati, Ohio
Residential Group, Robert L. Coe.....Union Electric Co., St. Louis, Mo.
Special Services Group, B. L. Palm.....Central Illinois Public Service Co., Springfield, Ill.

ENGINEERING

Engineering & Operating Division Executive, C. W. Franklin..Consolidated Edison Co. of N. Y., Inc., New York, N. Y.
Electrical System & Equipment, H. E. Deardorff.....The Dayton Power and Light Co., Dayton, Ohio
Hydraulic Power, L. B. Card.....Public Service Co. of Colorado, Denver, Colo.
Meter & Service, G. J. Yanda.....The Cleveland Electric Illuminating Co., Cleveland, Ohio
Prime Movers, J. M. Driscoll.....Consolidated Edison Co. of N. Y., Inc., New York, N. Y.
Transmission & Distribution, G. H. Fiedler.....Rochester Gas and Electric Corp., Rochester, N. Y.

GENERAL

General Division Executive, J. W. McAfee.....Union Electric Co., St. Louis, Mo.
Accident Prevention, R. W. White.....Pacific Gas and Electric Co., San Francisco, Calif.
Area Development, J. R. Frederick.....Wisconsin Power & Light Co., Madison Wis.
Atomic Power, E. H. Dixon.....Middle South Utilities Inc., New York, N. Y.
Awards, G. W. Ousler.....Duquesne Light Co., Pittsburgh, Pa.
Electric Power Survey, A. S. Griswold.....The Detroit Edison Co., Detroit, Mich.
Financing & Investor Relations, W. J. Rose.....American Gas and Electric Co., New York, N. Y.
Industrial Relations, J. C. Arnell.....Consolidated Edison Co. of N. Y., Inc., New York, N. Y.
Insurance, R. D. Constable.....Niagara Mohawk Power Corp., Syracuse, N. Y.
Legal, J. M. Keegan.....Consolidated Edison Co. of N. Y., Inc., New York, N. Y.
Membership, E. S. Thompson.....The West Penn Electric Co. (Inc.), New York, N. Y.
Purchasing & Stores, E. N. Scott.....Long Island Lighting Co., Hicksville, N. Y.
Rate Research, L. W. Frank.....Western Massachusetts Electric Co., Springfield, Mass.
Regulation, J. E. Corette.....The Montana Power Co., Butte, Mont.
Research Projects, E. H. Snyder.....Public Service Electric and Gas Co., Newark, N. J.
Statistical, F. A. Keane.....Public Service Electric and Gas Co., Newark, N. J.
Tax Policy, C. B. McManus.....The Southern Co., Inc., Atlanta, Ga.
Technical Assistance for Overseas Visitors, Harvey Bumgardner.....The Detroit Edison Co., Detroit, Mich.
Transportation, R. E. Hamel.....The Cleveland Electric Illuminating Co., Cleveland, Ohio

September, 1956
In Two Sections—Section II

EDISON ELECTRIC INSTITUTE BULLETIN

Officers, Board of Directors, Committees and Committee Personnel of the Edison Electric Institute

Administrative Year, 1956-1957

Contents—Section II

	Page
Edison Electric Institute Officers	1
Board of Directors	1
Advisory Committee	2
Objectives of the Edison Electric Institute	2
Personnel of EEI Committees for 1955-56	
Accounting Division	
Accounting Division Executive Committee	3
Customer Activities Group	
Customer Accounting Committee	4
Customer Collections Committee	4
Customer Relations Committee	4
General Activities Group	
Depreciation Accounting Committee	5
General Accounting Committee	5
Internal Auditing Committee	6
Plant Accounting and Property Records Committee	6
Taxation Accounting Committee	7
Special Activities Group	
Accounting Developments Service Committee	7
Accounting Employee Relations Committee	7
Application of Accounting Principles Committee	8
Electronic Accounting Machine Developments Committee	8
Uniform System of Accounts Committee	8
Commercial Division	
Commercial Division Executive Committee	8
Advertising Committee	9
Wiring Promotion Committee	9
Commercial Sales Group	
Commercial Cooking and Water Heating Committee	9
Commercial Lighting Committee	9
Electric Space Heating and Air Conditioning Committee	10
Market Development and Electrical Applications Committee	10
Street Lighting Committee	10
Farm Group	
Agricultural Development Committee	10
Farm Sales Promotion Committee	10
Farm Utilization Committee	11
Rural Youth Committee	11
Industrial Power and Heating Group	
Competitive Service Committee	11
General Power and Heating Committee	11
Industrial Sales Methods and Development Committee	11
Residential Group	
Dealer Coordination Committee	12
Home Service Committee	12
Market Research Committee	12
Residential Lighting Committee	12
Residential Promotion Committee	13
Special Services Group	
Sales Personnel and Training Committee	13
Wiring and Specifications Committee	13
Engineering and Operating Division	
Engineering and Operating Division Executive Committee	13
Electrical System and Equipment Committee	14
Hydraulic Power Committee	15
Meter and Service Committee	15
Prime Movers Committee	16
Transmission and Distribution Committee	17
General Committees	
General Division Executive Committee	18
Accident Prevention Committee	18
Area Development Committee	19
Atomic Power Committee	19
Awards Committee	19
Committee on Technical Assistance for Overseas Visitors	19
Electric Power Survey Committee	19
Financing and Investor Relations Committee	20
Industrial Relations Committee	20
Insurance Committee	21
Legal Committee	21
Membership Committee	22
Purchasing and Stores Committee	22
Rate Research Committee	23
Regulation	23
Research Projects Committee	24
Statistical Committee	24
Tax Policy Committee	24
Transportation Committee	24

EDISON ELECTRIC INSTITUTE

OFFICERS

D. S. KENNEDY, *President* ..... Oklahoma Gas and Electric Co., Oklahoma City, Okla.
J. W. MCAFEE, *Vice President* ..... Union Electric Co., St. Louis, Mo.
EDWIN VENNARD, *Vice President and Managing Director* ..... 420 Lexington Ave., New York, N. Y.
H. S. SUTTON, *Treasurer* ..... Consolidated Edison Co. of New York, Inc., New York, N. Y.
A. B. MORGAN, *Secretary and Assistant Managing Director* ..... 420 Lexington Avenue, New York, N. Y.

BOARD OF DIRECTORS

(Terms expiring 1957)

R. P. BRIGGS,
Consumers Power Co., Jackson, Mich.

W. J. CLAPP,
Florida Power Corp., St. Petersburg, Fla.

J. E. CORETTE,
The Montana Power Co., Butte, Mont.

C. P. CRANE,
Baltimore Gas and Electric Co., Baltimore, Md.

A. S. CUMMINS,
The California Oregon Power Co., Medford, Ore.

THOMAS G. DIGNAN,
Boston Edison Co., Boston, Mass.

E. W. DOEBLER,
Long Island Lighting Co., Mineola, N. Y.

JOHN W. EVERS,
Commonwealth Edison Co., Chicago, Ill.

C. E. IDE,
The Toledo Edison Co., Toledo, Ohio

S. R. KNAPP,
The Connecticut Light & Power Co., Berlin, Conn.

C. B. MCMANUS,
The Southern Co., Inc., Atlanta, Ga.

R. S. NELSON,
Gulf States Utilities Co., Beaumont, Texas

W. A. PARISH,
Houston Lighting & Power Co., Houston, Texas

HAROLD QUINTON,
Southern California Edison Co., Los Angeles, Calif.

L. V. SUTTON,
Carolina Power & Light Co., Raleigh, N. C.

(Terms expiring 1958)

J. L. BATES,
Central Power & Light Co., Corpus Christi, Texas

A. M. BEEBEE,
Rochester Gas & Electric Corp., Rochester, N. Y.

F. D. CAMPBELL,
Cambridge Electric Light Co., Cambridge, Mass.

C. B. DELAFIELD,
Consolidated Edison Co. of New York, Inc., New York, N. Y.

R. H. FITE,
Florida Power & Light Co., Miami, Fla.

R. H. GERDES,
Pacific Gas and Electric Co., San Francisco, Calif.

N. B. GUSSETT,
Iowa Power & Light Co., Des Moines, Iowa

E. L. LINDSETH,
The Cleveland Electric Illuminating Co., Cleveland, Ohio

D. C. LUCE,
Public Service Electric & Gas Co., Newark, N. J.

M. S. LUTHRINGER,
Central Illinois Public Service Co., Springfield, Ill.

C. E. OAKES,
Pennsylvania Power & Light Co., Allentown, Pa.

H. T. PRITCHARD,
Indianapolis Power & Light Co., Indianapolis, Ind.

K. M. ROBINSON,
The Washington Water Power Co., Spokane, Wash.

L. M. SMITH,
Alabama Power Co., Birmingham, Ala.

HAROLD TURNER,
American Gas and Electric Co., New York, N. Y.

(Terms expiring 1959)

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Western Massachusetts Electric Co., Greenfield, Mass.

STUART COOPER,
Delaware Power & Light Co., Wilmington, Del.

CARL J. FORSBERG,
Wisconsin Power & Light Co., Madison, Wis.

ALLEN S. KING,
Northern States Power Co., Minneapolis, Minn.

C. E. KOHLHEPP,
Jersey Central Power & Light Co., Asbury Park, N. J.

C. R. LANDRIGAN,
The Detroit Edison Co., Detroit, Mich.

J. E. LOISEAU,
Public Service Co of Colorado, Denver, Colo.

EARLE J. MACHOLD,
Niagara Mohawk Power Corp., Syracuse, N. Y.

D. C. MCKEE,
The Empire District Electric Co., Joplin, Mo.

P. H. POWERS,
West Penn Power Co., Greensburg, Pa.

R. G. RINCLIFFE,
Philadelphia Electric Co., Philadelphia, Pa.

R. E. RITCHIE,
Arkansas Power & Light Co., Little Rock, Ark.

W. H. SAMMIS,
Ohio Edison Co., Akron, Ohio

J. R. WELSH,
Southwestern Gas and Electric Co., Shreveport, La.

ERWIN H. WILL,
Virginia Electric and Power Co., Richmond, Va.

Executive Committee

C. B. Delafield, T. G. Dignan, A. S. King, E. L. Lindseth, C. E. Oakes, Harold Quinton, R. G. Rincliffe, W. H. Sammis, L. V. Sutton

ADVISORY COMMITTEE

D. C. BARNES,
Virginia Electric and Power Co., Charlottesville, Va.

A. D. BARNEY,
The Hartford Electric Light Co., Hartford, Conn.

W. C. BECKJORD,
The Cincinnati Gas & Electric Co., Cincinnati, Ohio

J. B. BLACK,
Pacific Gas and Electric Co., San Francisco, Calif.

HARLLEE BRANCH, JR.,
Georgia Power Co., Atlanta, Ga.

W. L. CISLER,
The Detroit Edison Co., Detroit, Mich.

T. W. DELZELL,
Portland General Electric Co., Portland, Ore.

E. H. DIXON,
Middle South Utilities, Inc., New York, N. Y.

R. ROY DUNN,
Potomac Electric Power Co., Washington, D. C.

P. A. FLEGER,
Duquesne Light Co., Pittsburgh, Pa.

G. M. GADSBY,
Utah Power & Light Co., Salt Lake City, Utah

WILLIS GALE,
Commonwealth Edison Co., Chicago, Ill.

J. E. LOISEAU,
Public Service Co., of Colorado, Denver, Colo.

GEORGE L. MACGREGOR,
Texas Utilities Co., Dallas, Texas

J. W. MCAFEE,
Union Electric Co., St. Louis, Mo.

LYLE MCDONALD,
Public Service Electric and Gas Co., Newark, N. J.

PAUL B. MCKEE,
Pacific Power & Light Co., Portland, Ore.

I. L. MOORE,
New England Electric System, Boston, Mass.

W. C. MULLENDORE,
Southern California Edison Co., Los Angeles, Calif.

GROVER C. NEFF,
Wisconsin Power and Light Co., Madison, Wis.

J. S. OSBORNE,
Central & South West Corp., Chicago, Ill.

H. R. SEARING,
Consolidated Edison Co. of New York, Inc., New York, N. Y.

MCGREGOR SMITH,
Florida Power & Light Co., Miami, Fla.

PHILIP SPORN,
American Gas and Electric Co., New York, N. Y.

FRANK M. TAIT,
The Dayton Power and Light Co., Dayton, Ohio

J. B. THOMAS,
Texas Electric Service Co., Fort Worth, Texas

E. S. THOMPSON,
The West Penn Electric Co. Inc., New York, N. Y.

G. W. VAN DERZEE,
Wisconsin Electric Power Co., Milwaukee, Wis.

ALLEN VAN WYCK,
Illinois Power Co., Decatur, Ill.

E. A. YATES,
The Southern Co. Inc., New York, N. Y.

Objectives of the Edison Electric Institute

The advancement in the public service of the art of producing, transmitting, and distributing electricity and the promotion of scientific research in such field.

The ascertainment and making available to the members and the public of factual information, data, and statistics relating to the electric industry.

To aid its operating company members to generate and sell electric energy at the lowest possible price commensurate with safe and adequate service, giving due regard to the interests of consumer, investor, and employee.

Personnel of EEI Committees for 1956-1957

Appointments to the Edison Electric Institute Committees for the Administrative Year 1956-1957 have been announced by Donald S. Kennedy, President of the Institute. Personnel of the committees are listed on the following pages.

Accounting Division

ACCOUNTING DIVISION EXECUTIVE COMMITTEE

Chairman, R. G. SCHNEIDER, Virginia Electric and Power Co., Richmond, Va.

Vice Chairman, J. D. ELLIOTT, The Detroit Edison Co., Detroit, Mich.

N. J. AMBROSE, Stone & Webster Service Corp., New York, N. Y.
G. L. ANDRUS, New Orleans Public Service Inc., New Orleans, La.
H. W. BOOZER, Georgia Power Co., Atlanta, Ga.
G. J. BRETT, Niagara Mohawk Power Corp., Syracuse, N. Y.
*R. W. BRITT, Wisconsin Electric Power Co., Milwaukee, Wis.
OTTO BRUNENMEISTER, JR., Ohio Edison Co., Akron, Ohio
R. B. CARPENTER, Carolina Power & Light Co., Raleigh, N. C.
C. L. CARR, Potomac Electric Power Co., Washington, D. C.
J. V. CLEARY, Consolidated Edison Co. of New York, Inc., New York, N. Y.
L. W. COUGHLAN, Pacific Gas and Electric Co., San Francisco, Calif.
C. T. DWIGHT, The Hartford Electric Light Co., Hartford, Conn.
A. F. ELDER, The Washington Water Power Co., Spokane, Wash.
*A. T. EMMONS, West Penn Power Co., Greensburg, Pa.
H. C. FLECK, New York State Electric & Gas Corp., Ithaca, N. Y.
*R. R. FORTUNE, Pennsylvania Power & Light Co., Allentown, Pa.
FRANK FREER, JR., Public Service Electric and Gas Co., Newark, N. J.
E. H. HEGMANN, Duquesne Light Co., Pittsburgh, Pa.
*A. C. HERRON, Florida Power Corp., St. Petersburg, Fla.
R. W. HOGG, Atlantic City Electric Co., Atlantic City, N. J.
E. J. HOWE, Rochester Gas and Electric Corp., Rochester, N. Y.
R. P. KAESSHAEFER, The West Penn Electric Co., Inc., New York, N. Y.
*J. W. KEHOE, Commonwealth Edison Co., Chicago, Ill.
*A. H. KERN, Alabama Power Co., Birmingham, Ala.
J. W. KLUBERG, Consumers Power Co., Jackson, Mich.
L. M. LA PORTE, Wisconsin Electric Power Co., Milwaukee, Wis.
*P. R. LAWSON, Pennsylvania Electric Co., Johnstown, Pa.
F. H. MARKLEY, Pennsylvania Power & Light Co., Allentown, Pa.
G. R. MARRS, Texas Power & Light Co., Dallas, Texas
*J. F. MCCAHON, Philadelphia Electric Co., Philadelphia, Pa.
RODMAN MCCLANAHAN, Middle West Service Co., Chicago, Ill.
*B. J. MCMILLEN, The Cincinnati Gas & Electric Co., Cincinnati, Ohio
A. J. MCNULTY, Boston Edison Co., Boston, Mass.
A. G. MITCHELL, Philadelphia Electric Co., Philadelphia, Pa.
D. T. MONTGOMERY, Northern States Power Co., Minneapolis, Minn.
E. W. MOREHOUSE, General Public Utilities Corp., New York, N. Y.
R. A. OLSON, Kansas City Power & Light Co., Kansas City, Mo.
C. E. PICHLER, Southern California Edison Co., Los Angeles, Calif.
S. E. RATCLIFFE, Virginia Electric and Power Co., Richmond, Va.
*P. K. READ, New York State Electric & Gas Corp., Ithaca, N. Y.
L. E. REYNOLDS, The Connecticut Light & Power Co., Hartford, Conn.
NEILL RICHARDS, Kansas Gas and Electric Co., Wichita, Kan.
R. W. RICHARDSON, Mississippi Power Co., Gulfport, Miss.
L. G. ROEMER, Wisconsin Public Service Corp., Milwaukee, Wis.
F. W. ROGERS, Texas Electric Service Co., Fort Worth, Texas
H. H. SCAFF, Ebasco Services Inc., New York, N. Y.
W. C. SCHOEPPE, Florida Power Corp., St. Petersburg, Fla.
H. E. SIMPSON, Florida Power & Light Co., Miami, Fla.
*R. E. TATE, Kansas Gas and Electric Co., Wichita, Kan.
*A. P. THOMPSON, Iowa Power and Light Co., Des Moines, Iowa
*W. E. TRAVIS, The Cleveland Electric Illuminating Co., Cleveland, Ohio
R. B. TULPIN, Central Illinois Public Service Co., Springfield, Ill.
*R. J. VAN ESS, Consumers Power Co., Jackson, Mich.
R. D. WHITE, Union Electric Co., St. Louis, Mo.
R. O. WHITMAN, American Gas and Electric Service Corp., New York, N. Y.
G. H. WIER, Commonwealth Edison Co., Chicago, Ill.
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W. J. WITTE, Baltimore Gas and Electric Co., Baltimore, Md.
L. P. WORKS, Wisconsin Public Service Corp., Green Bay, Wis.
H. E. YEIDE, Potomac Electric Power Co., Washington, D. C.

General Committees

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C. E. KOHLHEPP, New Jersey Power & Light Co., Denville, N. J.
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Vice Chairman, I. R. DOHR, Consumers Power Co., Jackson, Mich.
Secretary, E. S. EVANS, Edison Electric Institute, New York, N. Y.

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PETER BARRY, Rochester Gas and Electric Corp., Rochester, N. Y.
E. C. BOOKMAN, Virginia Electric and Power Co., Richmond, Va.
W. C. BREMNER, Commonwealth Edison Co., Chicago, Ill.
J. T. CALLAHAN, Delaware Power & Light Co., Wilmington, Del.
R. M. CLARK, Atlantic City Electric Co., Atlantic City, N. J.
R. H. COLEMAN, Baltimore Gas and Electric Co., Baltimore, Md.
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C. A. COUTTS, Northern States Power Co., Minneapolis, Minn.
J. C. CUNNINGHAM, Indianapolis Power & Light Co., Indianapolis, Ind.
JACK DAVIS, Tampa Electric Co., Tampa, Fla.
J. G. DICKINSON, Wisconsin Electric Power Co., Milwaukee, Wis.
R. P. DOUGLAS, The Detroit Edison Co., Detroit, Mich.
ERROLL DUNBAR, Potomac Electric Power Co., Washington, D. C.
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E. A. HAGENBUCH, Pennsylvania Power & Light Co., Hazleton, Pa.
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C. E. HAMMON, Columbus and Southern Ohio Electric Co., Columbus, Ohio
J. R. HANFORD, Public Service Electric and Gas Co., Newark, N. J.
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T. D. HUGHSTON, Texas Power & Light Co., Dallas, Texas
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W. T. ROGERS, Ebasco Services Inc., New York, N. Y.
G. J. RUOFF, Central Hudson Gas & Electric Corp., Poughkeepsie, N. Y.
J. P. SCHERER, Iowa-Illinois Gas and Electric Co., Davenport, Iowa
C. F. SHEAKLEY, West Penn Power Co., Greensburg, Pa.

J. L. SHORES, Alabama Power Co., Birmingham, Ala.
O. P. STAMSTAD, Union Electric Co., St. Louis, Mo.
J. S. WANTLAND, Oklahoma Gas and Electric Co., Oklahoma City, Okla.
E. H. WESSELLS, JR., Western Massachusetts Electric Co., Springfield, Mass.
S. H. YOUNG, The Hartford Electric Light Co., Hartford, Conn.

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R. K. BARRATT, The Empire District Electric Co., Joplin, Mo.
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L. L. DAVIS, American Gas and Electric Service Corp., New York, N. Y.
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C. J. FUHRMANN, The Dayton Power and Light Co., Dayton, Ohio
G. F. GASKILL, Philadelphia Electric Co., Philadelphia, Pa.
E. L. GERBER, Atlantic City Electric Co., Atlantic City, N. J.
R. H. GIEDD, Florida Power Corp., St. Petersburg, Fla.
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FREDERICK HERR, JR., Central and South West Corp., Chicago, Ill.
E. M. HUBEN, Central Hudson Gas & Electric Corp., Kingston, N. Y.
W. A. HUCKINS, Utah Power & Light Co., Salt Lake City, Utah
W. J. JAMIESON, General Public Utilities Corp., New York, N. Y.
J. E. JOHANSON, Union Electric Co., St. Louis, Mo.
W. H. KENNEDY, JR., Arkansas Power & Light Co., Little Rock, Ark.
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J. R. LESTER, Alabama Power Co., Birmingham, Ala.
V. S. MADISON, The Detroit Edison Co., Detroit, Mich.
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S. F. MCGOWAN, Northern States Power Co., Minneapolis, Minn.
W. G. MCKIE, Rochester Gas and Electric Corp., Rochester, N. Y.
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D. E. STEWART, Carolina Power & Light Co., Raleigh, N. C.
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S. L. FERGUSON, The Detroit Edison Co., Detroit, Mich.
H. H. FERRIN, Oklahoma Gas and Electric Co., Oklahoma City, Okla.
S. L. HALL, Potomac Electric Power Co., Washington, D. C.
HARRY HANSON, New England Electric System, Boston, Mass.
FREDERICK HERR, JR., Central and South West Corp., Chicago, Ill.
C. C. HERRMANN, Wisconsin Power and Light Co., Madison, Wis.
E. J. HOWE, Rochester Gas and Electric Corp., Rochester, N. Y.
L. H. JAEGER, The Southern Co. Inc., New York, N. Y.
G. F. JOHNSON, Northern States Power Co., Minneapolis, Minn.
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E. R. PETERSON, Southern California Edison Co., Los Angeles, Calif.
H. T. PRITCHARD, Indianapolis Power & Light Co., Indianapolis, Ind.
W. O. RANDALL, Columbus and Southern Ohio Electric Co., Columbus, Ohio
L. E. REYNOLDS, The Connecticut Light & Power Co., Hartford, Conn.
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T. F. ROWE, New York State Electric & Gas Corp., Ithaca, N. Y.
F. E. RUGEMER, Baltimore Gas and Electric Co., Baltimore, Md.
H. H. SCAFF, Ebasco Services Inc., New York, N. Y.
A. H. SCHETTLER, Union Electric Co., St. Louis, Mo.
H. E. SIMPSON, Florida Power & Light Co., Miami, Fla.
S. G. STALNECKER, Public Service Electric and Gas Co., Newark, N. J.
A. C. STEWART, Kentucky Utilities Co., Lexington, Ky.
L. V. SUTTON, Carolina Power & Light Co., Raleigh, N. C.
H. P. TAYLOR, Wisconsin Public Service Corp., Milwaukee, Wis.
A. PAUL THOMPSON, Iowa Power and Light Co., Des Moines, Iowa
A. C. VENCE, Atlantic City Electric Co., Atlantic City, N. J.
W. D. VIRTUE, Public Service Co. of Colorado, Denver, Colo.
JOHN WILKIE, Central Hudson Gas & Electric Corp., Poughkeepsie, N. Y.
W. H. ZIMMER, The Cincinnati Gas & Electric Co., Cincinnati, Ohio

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Secretary, E. S. EVANS, Edison Electric Institute, New York, N. Y.

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D. A. BARTLETT, Western Massachusetts Electric Co., Springfield, Mass.
C. B. BOULET, Wisconsin Public Service Corp., Green Bay, Wis.
H. L. BOWEN, Georgia Power Co., Atlanta, Ga.
G. C. BROOKS, New York State Electric & Gas Corp., Binghamton, N. Y.
M. F. BUNNELL, Florida Power Corp., St. Petersburg, Fla.
A. E. BURNETT, Alabama Power Co., Birmingham, Ala.
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C. H. CAMPBELL, Pacific Power & Light Co., Portland, Ore.
J. W. Carothers, Baltimore Gas and Electric Co., Baltimore, Md.
H. F. CARR, Pacific Gas and Electric Co., San Francisco, Calif.
A. L. COLLIGAN, Central Hudson Gas & Electric Corp., Poughkeepsie, N. Y.
W. J. COOPER, The United Illuminating Co., New Haven, Conn.
J. K. DAVIS, The Toledo Edison Co., Toledo, Ohio
M. T. DUNLAP, Carolina Power & Light Co., Raleigh, N. C.
G. W. FEWKES, Philadelphia Electric Co., Philadelphia, Pa.
F. J. GLEESON, Northern States Power Co., Minneapolis, Minn.
C. S. GREEN, New Orleans Public Service Inc., New Orleans, La.
P. V. HAYDEN, The Connecticut Light & Power Co., Hartford, Conn.
J. P. HENNESSY, Boston Edison Co., Boston, Mass.
J. D. HOGG, The Cleveland Electric Illuminating Co., Cleveland, Ohio
C. V. HUSSEY, Arkansas Power & Light Co., Pine Bluff, Ark.
A. W. ISENHART, The Dayton Power and Light Co., Dayton, Ohio

WILLIAM ISMAY, Arizona Public Service Co., Phoenix, Ariz.
C. E. JONES, Mississippi Power & Light Co., Jackson, Miss.
W. L. JONES, Potomac Electric Power Co., Washington, D. C.
R. R. KATTERHENRY, Indianapolis Power & Light Co., Indianapolis, Ind.
G. E. KIDD, Virginia Electric and Power Co., Richmond, Va.
M. A. KIRK, Central Illinois Public Service Co., Springfield, Ill.
F. L. LARKIN, Wisconsin Electric Power Co., Milwaukee, Wis.
S. F. LEAHY, The Detroit Edison Co., Detroit, Mich.
I. O. MALL, Ebasco Services Inc., New York, N. Y.
G. E. MCKENNA, Ohio Edison Co., Akron, Ohio
H. H. MELVIN, Atlantic City Electric Co., Atlantic City, N. J.
W. F. MOSES, New Jersey Power & Light Co., Denville, N. J.
M. E. NELSON, San Diego Gas & Electric Co., San Diego, Calif.
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M. F. OSTERLING, The Hartford Electric Light Co., Hartford, Conn.
C. E. PARKER, Commonwealth Edison Co., Chicago, Ill.
H. A. PETERSON, American Gas and Electric Service Corp., New York, N. Y.
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H. V. POTTS, Columbus and Southern Ohio Electric Co., Columbus, Ohio
F. R. RAUCH, The Cincinnati Gas & Electric Co., Cincinnati, Ohio
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H. S. RICHMOND, Consumers Power Co., Jackson, Mich.
O. H. RIRIE, Utah Power & Light Co., Salt Lake City, Utah
W. H. SENYARD, Louisiana Power & Light Co., New Orleans, La.
C. B. SHERMAN, Houston Lighting & Power Co., Houston, Texas
R. S. SOULE, Monongahela Power Co., Fairmont, W. Va.
C. R. STOCKHUS, Union Electric Co., St. Louis, Mo.
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L. E. SLADE, Iowa Power and Light Co., Des Moines, Iowa
M. A. TAIT, Commonwealth Edison Co., Chicago, Ill.
F. M. TERRY, Consolidated Edison Co. of New York, Inc., New York, N. Y.
J. E. WATTS, Long Island Lighting Co., Hicksville, N. Y.

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IRVIN FANE, Kansas City Power & Light Co., Kansas City, Mo.
R. K. HANGER, Texas Electric Service Co., Fort Worth, Texas
LESLIE HENRY, The Toledo Edison Co., Toledo, Ohio
LEE C. HOWLEY, The Cleveland Electric Illuminating Co., Cleveland, Ohio
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DAVID K. KADANE, Long Island Lighting Co., Mineola, N. Y.
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GEORGE L. RODGERS, Pacific Power & Light Co., Portland, Ore.
CHARLES F. ROUSE, Carolina Power & Light Co., Raleigh, N. C.
BERNARD W. SCHOTTERS, Indianapolis Power & Light Co., Indianapolis, Ind.
WILLIAM H. SCHRODER, Georgia Power Co., Atlanta, Ga.
F. T. SEARLS, Pacific Gas and Electric Co., San Francisco, Calif.
LELAN F. SILLIN, JR., Central Hudson Gas & Electric Corp., Poughkeepsie, N. Y.
HARRY G. SLATER, Niagara Mohawk Power Corp., Syracuse, N. Y.
HENRY J. SORENSON, Public Service Electric and Gas Co., Newark, N. J.
E. A. STANSFIELD, Public Service Co. of Colorado, Denver, Colo.
VAN B. WAKE, Wisconsin Electric Power Co., Milwaukee, Wis.
LEEDS A. WHEELER, New England Power Service Co., Boston, Mass.
ARTHUR M. WILLIAMS, JR., South Carolina Electric & Gas Co., Columbia, S. C.

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R. G. RINCLIFFE, Philadelphia Electric Co., Philadelphia, Pa.
H. R. SEARING, Consolidated Edison Co. of New York, Inc., New York, N. Y.
L. V. SUTTON, Carolina Power & Light Co., Raleigh, N. C.

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Vice Chairman (Stores), T. S. DUNSTAN, Consolidated Edison Co. of New York, Inc., New York, N. Y.
Secretary, H. T. SIMPSON, Boston Edison Co., Boston, Mass.

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F. E. BAXTER, Pacific Gas and Electric Co., San Francisco, Calif.
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J. P. BLUMER, Gulf Power Co., Pensacola, Fla.
D. G. BOUTON, Florida Power & Light Co., Miami, Fla.
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J. I. EVANS, Ohio Edison Co., Akron, Ohio
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H. E. HODGSON, Wisconsin Power and Light Co., Madison, Wis.
W. M. HOLLS, Baltimore Gas and Electric Co., Baltimore, Md.
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